# Occupational Hazards

*the magazine of industrial safety • fire protection • housekeeping*

MARCH 1961

A ... ING CORPORATION MAGAZINE

EDITORIAL DEPT
UNIVERSITY MICROFILMS INC
313 NORTH FIRST ST
ANN ARBOR MIC

## Get Safety Out of the Personnel Department

BEGINNING THIS MONTH:

## Basic Guidebook to Safety Management

## How Tight Is Your Plant Security?

# AN AUTHORITATIVE PAPER

## DECONTAMINATION OF HUMAN SKIN

EXPERIMENTALLY SOILED
BY RADIOACTIVE MATERIALS

JEAN SPENCER FELTON, M.D.*
AND
C. JOHN ROZAS, M.S.**
LOS ANGELES

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*Reprinted from the Archives of Environmental Health*
*August 1960, Vol. 1, pp. 87-95*
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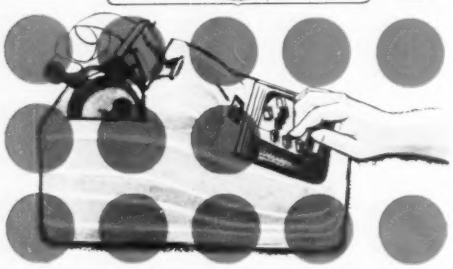

## ADD UP THE FACTS!

## WRITE TODAY, IT'S AN EYE OPENER!!!

**Professor of Occupational Health, Division of Occupational Health, School of Public Health, University of California (Dr. Felton)*

***Research Associate, Division of Occupational Health, School of Public Health, University of California (Mr. Rozas).*

K-60

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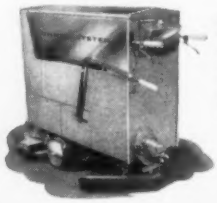
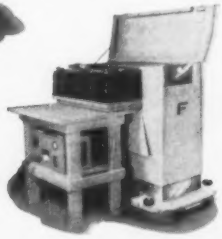


No switches to set for fast or slow — pressure of hand on clutch lever adjusts speed (up to 180 lineal fpm). Variable brush pressure to meet specific needs.



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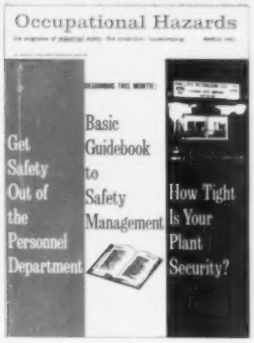
## *Readers' guide to*  *for March 1961*



### COVER

This month, P. J. Sheridan, our associate editor, begins a series of 12 articles that will cover, simply and with little theory, how to set up and manage an industrial safety program. These articles will hold no brief for any particular viewpoint, will be well larded with the practical experience of a great many plants. We'll have reprints of the entire series after the last article appears in February 1962.


**SAFETY**

**Get Safety out of the Personnel Department!** . . . . . 42
Two experienced industrial safety men lash out at the practice of putting safety under personnel.

**How To Plan a Safety Program** . . . . . 47
Part I of a 12-part series on the fundamentals of setting up and managing an industrial safety program.

**SECURITY**

**How Tight Is Your Plant Security?** . . . . . 29
You can't set up a good security program without first deciding what you want it to do for you.

**TV Controls the Doorways** . . . . . 31
Gulf Oil Corp. (Philadelphia) uses television to keep track of incoming and outgoing workers.

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A photo feature that shows what some companies do to protect people, property, and materials.

**FIRE PROTECTION**

**They Pay Extra for Top Fire Protection** . . . . . 36
Columbus Coated Fabrics Corp. has a waiting list of workers who want to be on its fire brigade.

**HYGIENE**

**When Microwaves Run Wild** . . . . . 34
Is microwave radiation really dangerous? Here's the answer, with names, dates, places, causes, effects.

**MEDICINE**

**What's Your Part in Preemployment Physicals?** . . . . . 38
You, as safety director, can make or break your company's medical examination program.

**HOUSEKEEPING**

**Winning Cleanup Formula** . . . . . 50
Abbott Laboratories, Inc., has a special testing program for housekeeping equipment and supplies.

**COMPENSATION LAW**

**Right Off the Docket** . . . . . 53
Again, we give you reports of recent disputed compensation and occupational disease cases.

**POSTER**

**Sudden Injury** . . . . . 59
A woman died because she walked by a grain elevator at the moment it exploded.

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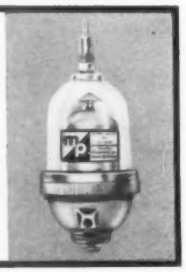

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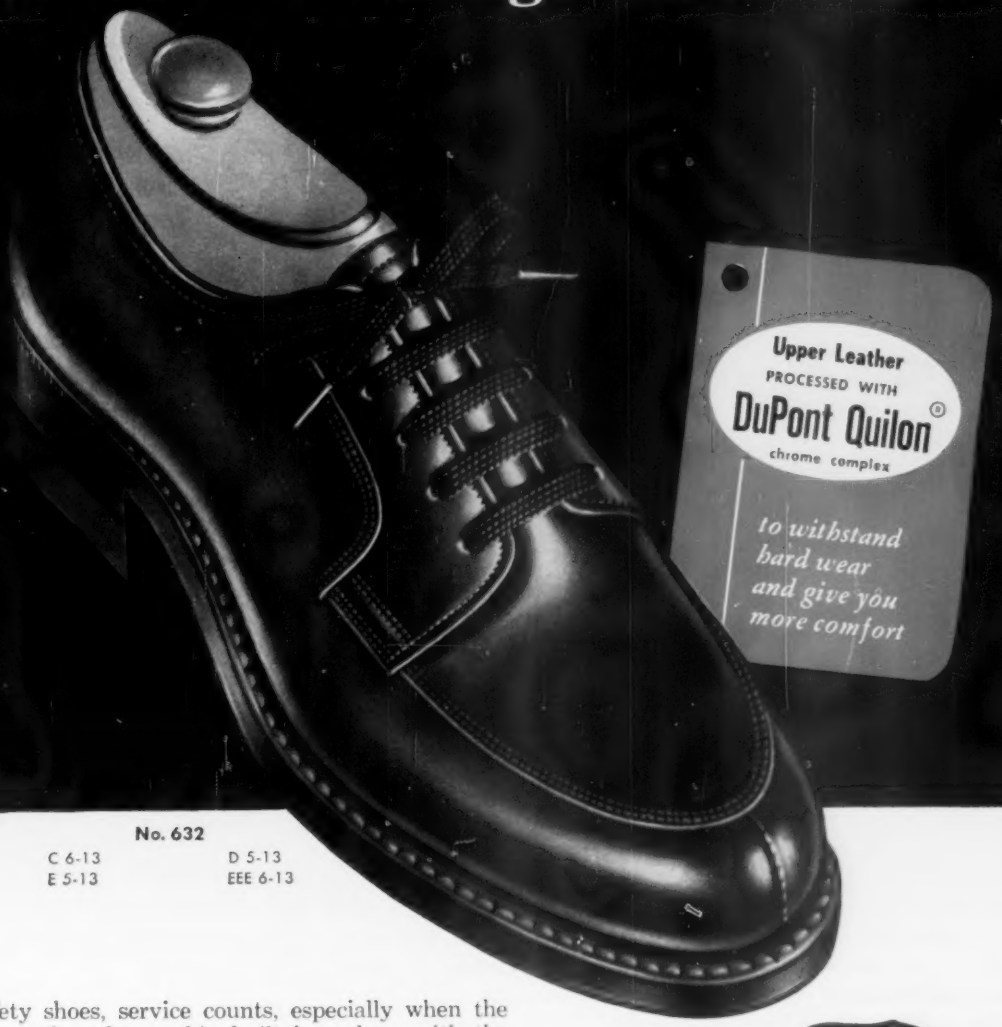


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Cotton work glove

Vinyl-impregnated fabric Werx glove

# Which hand was better protected?

Test after test by safety engineers demonstrates that job-fitted gloves not only protect better, they cost less because of longer wear and fewer nuisance hand injuries.* For example:

**CASE No. 582:** Handling highly polished laminates, Edmont's vinyl-impregnated Werx glove gave a surer grip and better protection against sharp edges, eliminated the problem of lint marks, and outwore the 10 oz. cotton gloves previously used 4 to 1 . . . . cut glove costs 50%.

**CASE No. 633:** Strapping steel wire around boxes, Edmont *job-fitted* Super Werx gloves wore 4 times longer than the leather palm gloves previously used . . . cut glove costs 73%.

**CASE No. 662:** Handling hearing aid components, light, extremely flexible Edmont Werx-Lite gloves not only kept powdery chemicals from filtering through to the operator's hands, but gave more sensitive "feel" and outwore the light cotton gloves previously used 5 to 1.

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**Center row:** (1) Dacron®-stitched, Tyrolean oxford of spice-tan glove leather. Rawhide laces, sweat resistant inner-sole, Neoprene-crepe outsole. D 6-12, EE 6-12. Style S-4368. (2) Spice-tan, glove-leather chukka boot with shock-absorbing, grooved, wedge sole-and-heel.

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# the case

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# LETTERS

## readers report

### Psychometry—New Word in Industry

EDITOR:

I am a student of psychometry at Marquette University and am interested in psychological testing articles appearing in your October 1960 magazine. . . .

Would it be possible for you to send me samples of the tests you administered at . . . the National Safety Congress & Exposition in Chicago? Please include the name of the psychologist who developed the tests. . . .

LYANNE FLEMING
Milwaukee, Wis.

*Psychometry is psychological measurement—another way of saying "testing man's mental and emotional characteristics." The tests we used at Chicago last October were developed by Dr. Earle Hannaford, Long Lines Division, American Telephone & Telegraph Co. They measured safety attitude.*

### Do You Know of This Item on Chains?

EDITOR:

I received a brochure several weeks ago which I think was released by OCCUPATIONAL HAZARDS. The brochure dealt with the "Care and Storage of Chains." One illustration showed how to prevent the block on a chain hoist from falling in case of hook failure.

If this . . . was released by you and copies are still available, I would greatly appreciate receiving a copy.

CARL F. BENNINGHOFF
Personnel Manager
Newton-New Haven Co.
New Haven, Conn.

*We supplied tear sheets of articles we've published on chain hoist safety, but we could find no record of this particular piece of literature. Does anyone know who put it out?*

### Deaths and Injuries Drop in Washington State

EDITOR:

. . . Safety-wise, the State of Washington has apparently experienced its best year in 1960. For the first time since we have been keeping industrial fatality records, it appears that we [had] less than 100 fatal injuries during the year. During the first half of 1960, the man-hours of exposure were up more than 8 million over the corresponding period in 1959. The overall accident frequency [was] reduced.

Facts . . . appear to indicate that

*continued on page 12*

THE KENNEDY "VICTORY" CAP

designed for GREATER SAFETY for all industrial Jobs!

Better protection for all the hair all the time because the full, wide, snood-type back of the Kennedy "Victory" Cap permits complete coverage. Easy to put on. Adjustable to all head sizes. 11 styles to choose from.

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The new 300 steel toes offer a true style approach to protection.

Dress safety shoes are now being produced by your safety shoe suppliers that will be most acceptable for wear at *all* times.

Keep your worker in safety both at home and on the job. Make these shoes available to him. Remember too, they will cost him less!

# new #300

*the safety toe with a new profile*

**Safety Box Toe Company**

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LIGHTWEIGHT SAFETY SHOES
REDUCE FATIGUE TO CUT ACCIDENTS

• SMART CASUAL LOOK

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Even men who resist ordinary safety shoes go for the lightweight comfort and good looks of LITE KNIGHT Safety Shoes. They weigh a full pound less per pair—and this adds up to an amazing half-ton saved for every mile walked.

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◀ Casual oxford or chukka styles in this exclusive Haus of Krause construction that permits the use of lightweight materials in LITE KNIGHT Safety Shoes while meeting all ASA requirements for toe protection.

HAUS OF KRAUSE
SAFETY SHOES
H/K

Industrial jobbers interested in acquiring a franchise, write to Haus of Krause, Rockford, Mich.

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## Letters

*continued from page 10*

there is a direct relationship between an effective inspection and educational program and safer operations. We find as we develop the safety program outlined in our General Safety Standards that the cooperative effort between labor, management, and the Department [of Labor & Industries] results in safer operations.

In our changing industrial pattern, construction has moved into the lead as the most hazardous industry in the State, . . . based upon the number of fatal accidents. It is quite apparent here that greater attention will have to be paid to this major industry classification. So many of the construction projects are not of a permanent nature, making it difficult to maintain a continuing, permanent type safety organization.

RALPH W. PEOPLES
Industrial Engineer
Department of Labor & Industries
Olympia, Wash.

### Dry Sprinklers Being Improved?

EDITOR:

We have read with interest your article "What's Ahead in Fire Protection?" in the December issue of OCCUPATIONAL HAZARDS.

The statement on page 26 that "most of the big sprinkler manufacturers and a number of laboratories are trying to improve on dry sprinkler systems" arouses our curiosity.

We would greatly appreciate your giving us any available information on what manufacturers and laboratories are working on this problem and what improvements they are working on.

A. S. HALL
Chief Standards Engineer
Factory Mutual Engineering Division
Norwood, Mass.

*We got the information in the quoted sentence from the National Fire Protection Association and representatives of two automatic sprinkler manufacturers.*

### Wants Training Films on Lineman Safety

EDITOR:

It is requested that this command be furnished with ordering informa-

*continued on page 16*

North American
Niagara Mohawk
Northern Natural
Northern State
Ohio Edison
Ohio Oil
Olin Mathieson
Oliver
Owens-Illinois
Pacific Gas &
Pacific Power
Pan American
Peabody Coal
Pennsylvania
Peoples Natural
Phillips Petroleum
Pittsburgh Plate
Pittsburgh Steel
Potomac Edison
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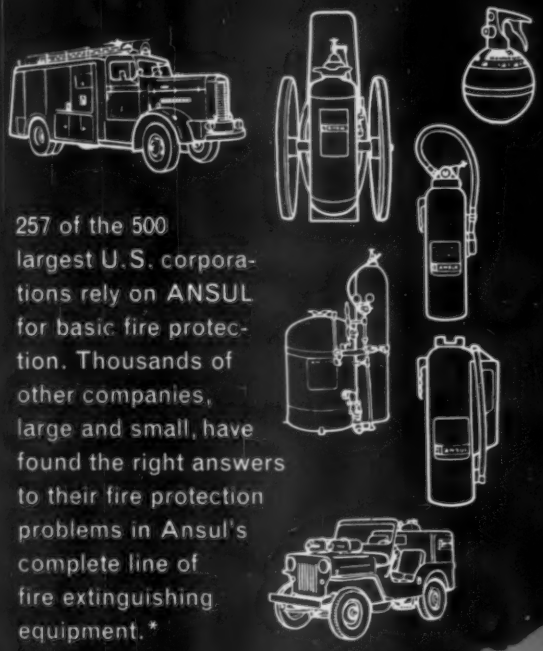
Pure Oil
Radio Corporation
Ralston Purina
Rayonier
Remington Arms
Republic Steel
Reynolds Metals
R. J. Reynolds Tobacco
Richfield Oil
Ruberoid
Schenley Distillers
Scott Paper
Sheron Steel
Shell Oil
Signal Oil
Sinclair Refining
Skelly Oil
Socony Mobil
Southern Calif
A. E. Staley
Standard Oil
Standard Oil
Standard Oil
Stauffer Chemical
Sun Oil
Sunray Mid-Cont
Suntide Refining
Sylvania Electric
Texas Company
Texas Eastern Trans
Texas Power & Light
Tidewater Oil
Time, Inc.
Timken Roller Bearing
Trans World Airlines
Union Carbide
Union Electric
Union Oil
Union Pacific
United Airlines
United Gas
U. S. Plywood
U. S. Rubber

257 of the 500 largest U.S. corporations rely on ANSUL for basic fire protection. Thousands of other companies, large and small, have found the right answers to their fire protection problems in Ansul's complete line of fire extinguishing equipment.*

*We'll be happy to send you our latest catalog describing in detail Ansul's line of hand portable dry chemical, carbon dioxide and water extinguishers, wheeled, stationary, mobile units and automatic systems.

Your local Ansul Man is a trained fire protection expert, available to survey your plant and counsel on your fire protection requirements. Call him for an appointment (he's listed in the "Yellow Pages") or write ANSUL CHEMICAL COMPANY, Marinette, Wisconsin.

**ANSUL**

Fire Equipment
Refrigeration Products
Industrial Chemicals.

Circle No. 14 on reader service card

# WE'RE NEVER SATISFIED WITH

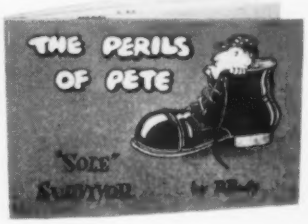
**SUCCESS!** Runaway best-selling safety shoe of the year: Lehigh's 6-inch general duty work shoe in plump, soft, glove leather with Neoprene cushion crepe wedge bottom. **Stock No. 1341.**

**NEW!** The nearest thing to rubber boots ever developed in leather: Lehigh's own Vulca-Sealed process ends seepage at the critical seam between water-repellent upper and cushion crepe sole. Left, **No. 1206;** right, **No. 1205.**

**NEW!** Until now it has been impractical to use **color** in rubber safety footwear without seriously affecting durability. Lehigh has licked that with new THOR-KOTE—offers a complete line of rubber styles in a broad range of color. This is **Stock No. 110,** black with bright yellow.

**NEW 16 PAGE "COMIC-BOOK" PAY-STUFFER!**

*Tells the foot-safety story in comic-book style that every employee will read from cover to cover. FREE in any desired quantities to cover your payroll.*




**LEHIGH SAFETY SHOE COMPANY, EMMAUS, PA.**

***Circle No. 15 on reader service card***

# THE STATE OF FOOT SAFETY!

*We are probing continuously, seeking new and better constructions . . . ideas that will improve wear, looks or acceptance. Here are just a few that will set the pace for the industry in 1961. See them . . . and many more at*

# BOOTH NO. 16

**NEW!** 8-inch version of our top-selling 6-inch "Chemaster" work shoe with both sole and upper leather amazingly resistant to chemical corrosion — even powerful acids and alkalis. **Stock No. 1932.**

**NEW!** For the executive or foreman who resists the conventional round-toe safety shoe style, Lehigh introduces a brand new steel box toe—tapered and styleful as the smartest of regular street shoes. **Stock No. 1636.**

## GREATER NEW YORK SAFETY EXPOSITION

## HOTEL STATLER

## APRIL 10-14

**LEHIGH Safety Shoe Co.,** Emmaus, Pa.
*Please send at once, full details on Stock No. .....*
*Sample copy "Perils of Pete"* ☐ *Complete catalog* ☐

NAME

TITLE

COMPANY

ADDRESS

CITY ZONE STATE

*or, if you're not coming to the New York Show, mail this coupon now for new Lehigh literature including these new items and 71 other styles.*

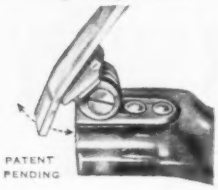
**Circle No. 15 on reader service card**

imitated imitated imitated imitated imitated

# but not duplicated

## Only Fendall Safety Glasses offer this combination of features

### Adjustable temple joints



PATENT PENDING

Front end of temple is designed so it can be adjusted for perfect temple fitting on all faces. For a narrow face, bend it in; for a wide face, bend it out; permits temple adjustment to provide exact amount of side tension to prevent slipppage.

### Multi-fit bridge

PATENTED AND PATENT PENDING

Fendall's patented Multi-Fit Bridge automatically fits 9 out of 10. Self-adapting to wearer's face, no adjusting, You can fit practically every worker with this one bridge size. Reduces inventory. Unequalled fitting ease and wearing comfort.

### Lok-tite hinge pins

PATENT PENDING

This exclusive Eendall feature eliminates the trouble and, annoyance caused by loose and lost temple screws. Fendall's Lok-Tite Hinge Pins snap in easily, lock in position, cannot fall out, yet they are simple to remove, if necessary.

**NEW LENS SHAPE** provides closer orbital fit, wider vision, increased safety.

**SPECIAL SKULL TEMPLES** of nickel silver, with molded plastic paddles. Easily adjusted for perfect fit, no slippage.

**COLORED FRAMES**—Available in flesh, bronze, cordovan and green.

**SPECIAL INSULATION** on cable-type temples. Will not loosen. Perspiration-resistant.

**SMART MODERN STYLING**—Sturdy and comfortable, without the bulky look and feel of "goggles."

Choice of acetate or metal frames, skull temples, cable temples, sideshields, etc.

*Send for complete details now!*

FENDALL PRODUCTS FEND ALL HAZARDS

**FENDALL COMPANY**

2224 DIVERSEY BLVD., CHICAGO 47, ILLINOIS

*Distributed in Canada by Levitt-Safety Limited*

**Circle No. 16 on reader service card**

## Letters

*continued from page 12*

tion on the four films referenced on page 30 of your November issue of Occupational Hazards, title "Indoor-Outdoor Safety School for Linemen."

We are interested in having our instructor personnel in construction electrician's school preview these films with the possibility of obtaining copies for use in this school. . . .

D. G. Windle, Lt. (jg), USN
Officer in Charge
Construction Electrician's School
Port Hueneme, Calif.

*The four films are used by Cincinnati & Suburban Telephone Co., 225 East Fourth Street, Cincinnati 2, to teach linemen safe working methods. Complete information about them must come from the company's public relations department.*

### Case History of Fire Goes to Managers

Editor:

. . . Your November 1960 issue . . . carried an article commencing on page 42, entitled "Million-Dollar Fire Loss? What a Fallacy That Is!" The fire marshal in our safety and security services department was particularly impressed with this article and has expressed the desire to reproduce it for distribution among the managers in our plant.

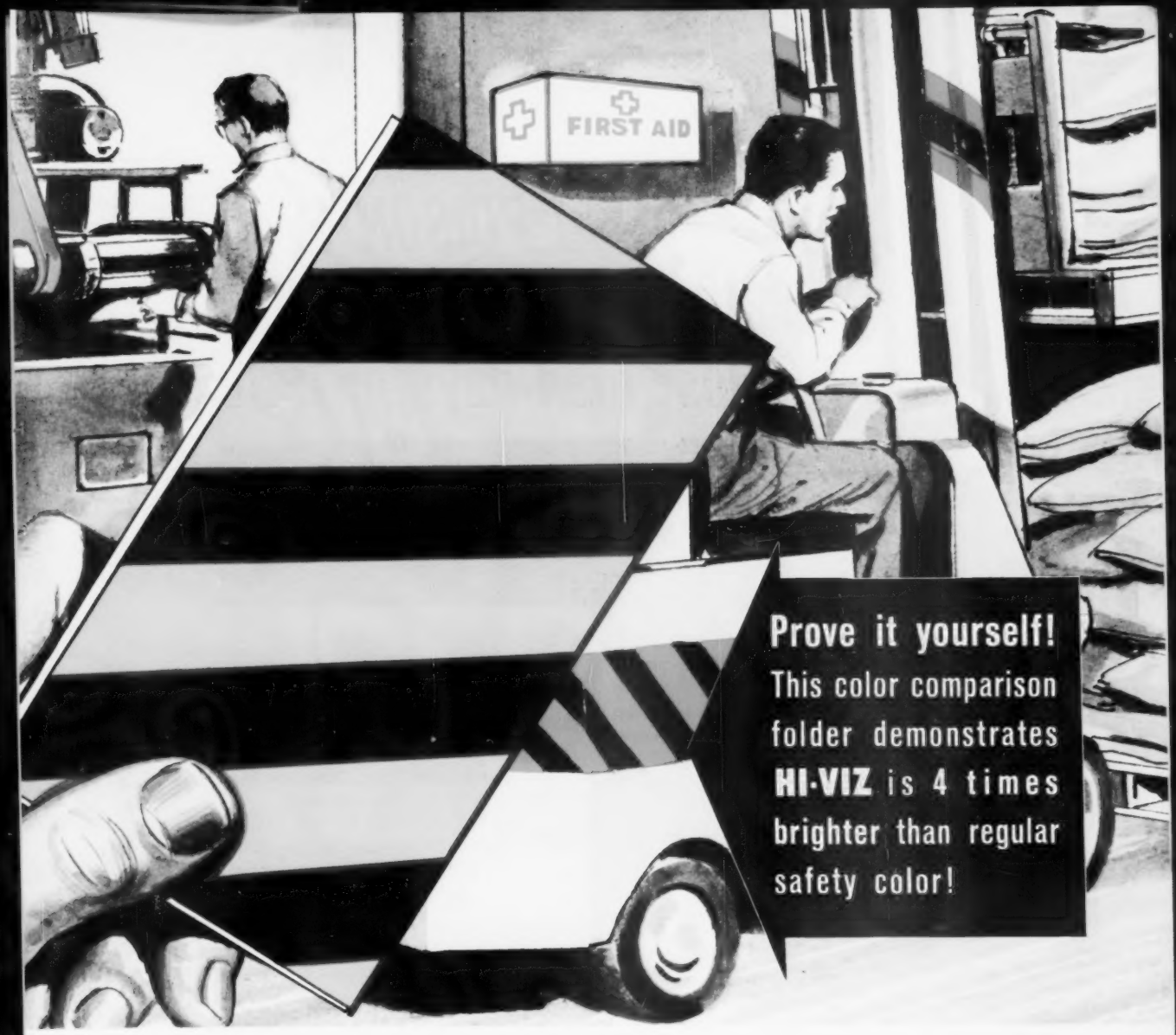
The reproduction we desire would be accomplished by retyping the article for the purpose of making approximately 600 copies which would be distributed to our managers together with a brief comment on the purpose of its distribution. The proposed reproduction would include appropriate reference to your publication and credit for the article. . . .

Donald E. Greenholz
Office of Counsel
International Business
Machines Corp.
Endicott, N. Y.

*Permission granted. Do you like case histories of actual fires that tell what to do to avoid similar ones? Have you tried showing articles like this one—which told of a fire at the Cato Oil & Grease Co.—to your own executives?*

Don't miss the special report on protective clothing in the April issue of Occupational Hazards.

**Circle No. 17 on reader service card**




# Test HI-VIZ® *fluorescent safety* COLOR *in your plant* FREE!

**Write today** for your free HI-VIZ Color Comparison folder. See how HI-VIZ Fluorescent Safety Paint can work for you in and around your plant. Detach the special HI-VIZ Safety Color comparison panel and adhere it to any area or equipment now painted with "regular" safety color. From any distance, HI-VIZ will prove its superior safety value . . . its unduplicated ability to attract immediate attention! Once you've made the HI-VIZ test, you'll want to safety-mark your entire operation with HI-VIZ Fluorescent Safety Paint. Write today for your Free HI-VIZ Color Comparison folder and complete literature pack: color swatches, "101" Uses leaflet, HI-VIZ Color Code charts, technical bulletin and industrial price list.

**For Full Scale HI-VIZ Paint Test**

Order HI-VIZ Safety Kit S-20: Contains one 16 oz. aerosol spray-can each of 506® White Primer, HI-VIZ Color and UVITRON® Protective Sealer plus qtr. pt. each of 8 HI-VIZ Colors in alkyd enamel, with 2 qtr. pts. each of 506 White Primer and UVITRON Protective Sealer. **$20.00 each plus postage—shipping weight 10 lbs.** Order through your distributor or write Lawter today. Money-back guarantee if HI-VIZ does not perform as specified.

**LAWTER CHEMICALS, INC.**

Dept. S, 3550 Touhy Avenue, Chicago 45, Illinois, AMbassador 2-8400

San Leandro, California • CHICAGO • South Kearny, New Jersey

**U. S. AND FOREIGN** (except Canada): E. D. Bullard Company Distributors.

**IN CANADA:** Safety Supply Company, Toronto, Ontario.

# POISON IVY and POISON OAK caused an estimated 600,000 lost man-days in 1960

▶ The great majority of these cases could have been minimized by BULLARD'S IMUNIVY and IMUNOAK—

▶ Used by construction companies, utilities and state highway departments for over a quarter-century

IMUNIVY and IMUNOAK are sterile, standardized, non-toxic, pure extracts of poison ivy and poison oak plants. When taken as directed they will eliminate or substantially reduce the incidence and severity of irritation from the entire Rhus family of plants. For over 30 years IMUNIVY and IMUNOAK, prepared by an approved pharmaceutical laboratory, have been sold by E. D. Bullard Company and their distributors. During this period *there has not been a single report of adverse reactions.*

### Imunivy and Imunoak are easy to take

Both products may be administered intramuscularly by a physicican or nurse if so desired. However, the majority of firms suggest that their men take them orally as follows: One vial (1cc) in ½ glass of water, milk or fruit juice, on two successive days in the early spring. Follow with one vial each month until frost has destroyed the plants. In milder climates many companies recommend use once each month the year around.

### Imunivy and Imunoak are proved effective

During the past 30 years, thousands of outdoor workers have taken these products with noticeable effectiveness in the great majority of cases. Their use by military units during short summer encampments indicates the effectiveness of both IMUNIVY and IMUNOAK in providing almost immediate protection or reduction of irritation from contact dermatitis.

IMUNIVY—R97—four 1cc vials in single Unit Pack
IMUNOAK—R98—four 1cc vials in single Unit Pack

**NOTE TO PHYSICIANS, NURSES and SAFETY ENGINEERS**
Colored 8 x 10 posters illustrating the common poisonous plants, for use on your bulletin boards, and field reports from users, are available at no charge upon request.

**BULLARD'S IMUNIVY • IMUNOAK**

*Call your Bullard Distributor today for full details . . . or write*

**E. D. BULLARD COMPANY SAUSALITO • CALIFORNIA**
INDUSTRIAL SAFETY EQUIPMENT

IMUNIVY and IMUNOAK are trademarks, reg. U.S. Pat. Off.
Copyright 1961, E. D. Bullard Co.

**Circle No. 18 on reader service card**

EASIEST WAY
EVER DEVISED TO PUT
***GREATEST EYE SAFETY***
AT EVERYBODY'S
FINGERTIPS

# The NEW SIGHT SAVERS® CLEANING STATION

- ***Attractive***—color blends with any decor . . . shop, office, washroom, first aid.
- ***Efficient***—easy to use, delivers one tissue at a time.
- ***Compact***—simple to install on any wall.
- ***No maintenance***—no springs, no levers.
- ***Sturdy***—steel construction, fool-proof, pilfer-proof.
- ***Easy to refill*** with Sight Savers tissues before empty.

Order new Sight Savers Cleaning Stations from your safety supply distributor now. List price $1.00.

## SIGHT SAVERS KEEP SAFETY GLASSES SAFER

- *Sight Savers* contain at least twice as much silicone as other tissues! *They're completely soaked in silicone* (on both sides) for greatest cleaning and polishing action.
- *Sight Savers* are the best *size* for most efficient use — proved so by years of field research. *No waste with Sight Savers!*
- *Sight Savers* are already known, accepted, *preferred* by millions of eyeglass wearers. Nationally advertised . . . endorsed by leading opticians.
- *Sight Savers* meet Federal Government Specifications for lens cleaning tissues . . . UU-P-313c.

*Nothing short of genuine Sight Savers can do the work of Sight Savers. Just ask your safety supply distributor . . . he has the facts!*

first in silicones **Dow Corning CORPORATION**
MIDLAND, MICHIGAN

**Circle No. 19 on reader service card**

# FRESH AIR

# EVERYWHERE

## with the

## Scott Air-Pak

When emergencies create the unknown in atmospheric conditions, avoid guesswork, eliminate worry . . . equip your men with Scott Air-Paks and you can be sure they have the finest, safest respiratory protection available.

Scott Air-Paks deliver pure, cool, fresh air to the wearer as he requires it. Breathing is easy and comfortable. It is completely independent of surrounding atmospheres. The Scottoramic Mask gives picture-window vision that helps the wearer to spot danger zones quickly for maximum safety.

Let us tell you about the various Scott Air-Pak Models available and their low . . . low operating cost.

**Scott AVIATION CORP.**
229 ERIE STREET, LANCASTER, NEW YORK

Export: Southern Oxygen Co., 3 West 57th Street, New York 19, New York
Canada: Safety Supply Co., Toronto—Branches in Principal Cities

Scott Pak-Alarm. An Audio-Video safety system for all Scott Air-Paks.

**SCOTT AVIATION CORP.**
229 ERIE STREET, LANCASTER, N. Y.

Please send me the following literature and prices:

☐ Scott Air-Pak brochure, 6-page, 2-color.
☐ Pak-Alarm Specification sheet.

Name _____ Title _____
Company _____
Address _____
City _____ Zone ____ State _____

*Circle No. 20 on reader service card*


## SAFETYMAN'S CALENDAR
events to attend

MARCH 26-29. *22d Annual Texas Safety Conference.* Rice Hotel. Houston. Information: J. O. Musick, general manager, Texas Safety Association, 830 Littlefield Building, Austin, Tex.

MARCH 27. *Construction Safety Association of Ontario.* Royal York Hotel, Toronto, Ont. Annual Meeting. Information: James N. Shepard, general manager, Construction Safety Associations of Ontario, 90 Harbour St., Toronto 1, Ontario, Canada.

MARCH 28-30. *Western Safety Congress & Exhibits.* Ambassador Hotel, Los Angeles. Presents the largest display of safety equipment and services in western America. Information: A. B. Chapman, exhibits manager, Greater Los Angeles Chapter, National Safety Council, 3388 West 8th Street, Los Angeles 5, Calif.

APRIL 3-4. *40th Massachusetts Safety Conference.* Statler-Hilton Hotel, Boston. In addition to discussion of various aspects of accident prevention, there will be exhibits of safety devices and equipment. Information: Bert Harmon, manager, Massachusetts Safety Council, 54 Devonshire Street, Boston 9, Mass.

APRIL 4-6. *8th Annual Industrial Fire Control Conference.* Purdue University, Lafayette, Ind. Will feature outstanding industrial fire control authorities, lecturers, and moderators. Information: Prof. Shelby Gallien, seminar director, Public Safety Institute, Purdue University, West Lafayette, Ind.

APRIL 10-14. *Greater New York Safety Council 31st Annual Safety Convention & Exposition.* Hotel Statler-Hilton, New York City. Exhibits will be open 3 days—the 11th, 12th, 13th. Information: E. A. Fullarton, exhibit chairman, Lincoln Building, 60 East 42nd Street, New York 17, N. Y.

APRIL 11-12-13. *31st Annual Michigan Safety Conference.* Civic Auditorium, Lansing, Mich. Information: R. T. Daniels, Safety Director. Fisher Body Division, GMC, Administration Bldg. 111, 30001 Van Dyke, Warren, Michigan.

*Vehicle Checks*

*Crime Deterrence*

*Fire Prevention*

*Electronic Surveillance*

# The Burns Guard sees with electronic eyes, too ...yet he costs you 20% less!

Plant protection, like any other vital phase of your business, needs constant re-evaluation to be kept at top efficiency. If your security system hasn't been reviewed lately, it would be a good idea to talk to a Burns Industrial Plant Protection Specialist today.

*Burns will analyze* your plant's operation, recommending a security system that meets your needs exactly. Burns also investigates periodically in case the needs change.

*Burns will provide guards* trained in the science of security, and, where feasible, will include electronic protection in the form of TV surveillance and radar detection.

*With or without electronic protection, Burns lowers security costs* because guard necessities, such as uniforms, sidearms, and such fringe costs as social security, recruiting, training, overtime are included in a complete package.

*Every Burns Guard knows:* first aid, fire prevention, intruder apprehension, daily log maintenance, time clock supervision, parking lot direction, reception procedures and patrol methods. And each Burns force is under round-the-clock supervision.

*No matter what your business,* Burns will mind it for you, saving you money initially and protecting your investment continually. Incidentally, a lot of our clients are handling classified U. S. Government contracts.

LET US SHOW YOU HOW Burns Guards can provide modern protection at a 20% or more saving. Just phone, write or wire the Burns office nearest you, and a Burns Security Specialist will give you complete details, at no obligation. Or write for our informative brochure, "It takes more than fences."

*Burns is the world's largest* SECURITY BURNS SERVICES *industrial security organization*

THE WILLIAM J. BURNS INTERNATIONAL DETECTIVE AGENCY, INC. EXECUTIVE OFFICES: 101 PARK AVENUE, NEW YORK 17, NEW YORK

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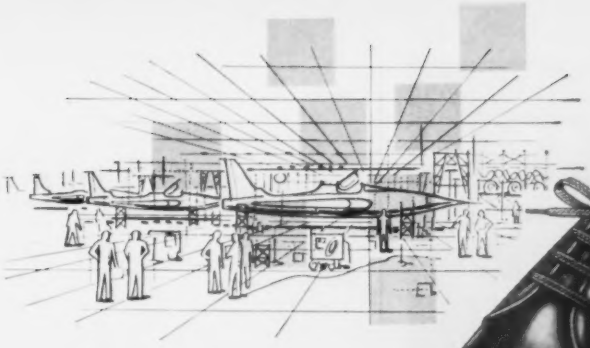
Circle No. 22 on reader service card

H302
NEW LAST
NEW STYLING
NEW SLIM, TRIM LOOK
new
all over.
NEW COLOR



H301

H303

H304

Every new feature to make them finer is built into Hy-Test's new SUPERVISOR safety oxfords. NEW dress-shoe styling on a NEW last in NEW colors and finishes . . . all are combined with the popular Anchor Flange Steel Box Toe and other safety and comfort qualities. Truly, you can't tell them from latest dress shoes until they save your toes. Get full details on these new numbers from our representative or write HY-TEST SAFETY SHOES, Division International Shoe Company, 1509 Washington Ave., St. Louis 66, Mo. • 2224 N. Tenth St., Philadelphia 33, Pa.

H301—NEW Havana brown shadow-tone leather oxford, NEW Supervisor last, oak leather sole, rubber heel, Anchor Flange Steel Box Toe.

H302 (at left)—Same as H301 except in Hy-Shine black.

Sizes: AA . . . 8-12, 13, 14; A, B . . . 7-12, 13, 14; C . . . 6-12, 13, 14; D, E . . . 5-12, 13, 14; EEE . . . 5-12, 13.

H303—NEW Havana brown shadow-tone leather moc slip-on, NEW Supervisor last, oak leather sole, rubber heel, Anchor Flange Steel Box Toe.

H304—Same as H303 except in Hy-Shine black.

Sizes: B . . . 7-12, 13; C . . . 6-12, 13; D, E . . . 5-12, 13.

Available in May.

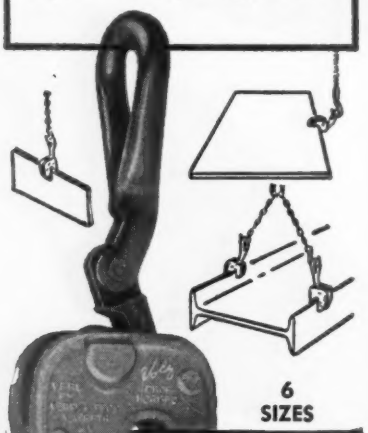
# HY-TEST

HY-TEST INTERNATIONAL SHOE COMPANY SAFETY SHOES

## *Safety Shoes*

YOUR BEST MOVE . . . MOVE with **MERRILL** MATERIAL HANDLING DEVICES FOR THE MOST IN *Safety and Economy*

Imitated, but never duplicated, Merrill Lifting Clamps are Drop Forged to give you Safety in Handling and Economy in Operation.



6 SIZES

FEATURING THIS MONTH

HORIZONTAL PLATE CLAMP
Rated capacity — 3 ton (6 tons per pair). Completely drop forged . . . Heat treated.

**Over 25 Material Handling Devices described in our catalog C-3.**

*Ask for a copy.*

**MERRILL BROTHERS**
*Producers of Drop & Press Forgings*
**56-45 Arnold Ave., Maspeth, N. Y.**
1-60

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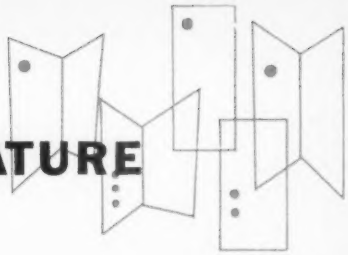
# USEFUL LITERATURE



**To obtain any of the free literature or samples mentioned here, circle the number on the readers' service card corresponding to the number of the item that interests you, and mail the card to us. No postage is needed.**

### *Illustrated signs*

Prairie State Products Co. has literature on cartoon-type metal signs. They're real eyecatchers when placed in hazardous places around the plant.

***Circle No. 300 on reader service card***

### *Fire protection*

The 1961 edition of Fyr-Fyter Co.'s "Interior Fire Fighting Equipment Catalog" is now available. Newly revised, the 16-page catalog includes engineering and specification data on fire extinguishers, fire hose and wall cabinets, nozzles, hose racks, hose reels, and related fire control accessory equipment. The catalog is 2-color, fully illustrated.

***Circle No. 301 on reader service card***

### *Hear-Guards*

"American Optical Hear-Guards are soft, sanitary, molded plastic inserts for the ears," says a sentence taken from AO's brightly colored, illustrated bulletin. Closeup photos show the correct manner to insert and wear this device to shut out noise.

***Circle No. 302 on reader service card***

### *Portable vacuum cleaner*

Cambridge Filter Corp. offers a 4-page illustrated circular describing its ABSOLUTE filter vacuum cleaner, designed to handle radioactive and toxic dusts. Clear and concise, it covers design, maintenance, efficiency, and special applications.

***Circle No. 303 on reader service card***

### *Floor matting*

"Industry's Matting Blueprint" is a D. W. Moor Co. 2-color, illustrated folder crammed with just the right kind of facts to help you handle your floor covering requirements. Various kinds and sizes include floor matting, corded rubber runners, stair treads, and mesh matting.

***Circle No. 304 on reader service card***

### *Safety switches*

The Clark Controller Co. has a bulletin that summarizes the American Electric ND Safety Switch. Said to be a composite of all the best safety switch features, it is diagrammed clearly in the bulletin.

***Circle No. 305 on reader service card***

*Circle No. 23 on reader service card*

### *All-purpose cleaner*

Literature will be sent, without obligation, by Consolidated Paint & Varnish Corp. regarding its all-purpose concentrated detergent, Goodyear APC. Recommended for removing grease and oil from machinery and floors and for washing hands after grimy jobs.

**Circle No. 306 on reader service card**

### *Safety cans*

The Protectoseal Co. issues comprehensive illustrated fact sheets concerning flammables control methods and practices in production, processing, and maintenance. Chiefly covered are Protectoseal's safety cans and its available catalogs.

**Circle No. 307 on reader service card**

### *Portable wheel stretcher*

Information sheets in two colors describe how patient transfer is made safer and easier by use of Orthopedic Frame Co.'s Stryker portable wheel stretcher. The sheets carry diagrams, photos, prices, and specifications.

**Circle No. 308 on reader service card**

### *Sight glass*

PresSure, with its Safelite lens, according to PresSure Products Co., is the safest sight gloss yet devised. An attractive 6-page, 2-color folder contains schematic drawings, half-sections, and a detailed text to bolster that claim.

**Circle No. 309 on reader service card**

### *Recuscitators*

Emerson resuscitators are featured in a parts and accessories price list offered by J. H. Emerson Co. Completely detailed and illustrated, this 4-page list includes instructions for shipping resuscitator mechanism to the factory or district sales and service representatives.

**Circle No. 310 on reader service card**

### *Hazardous chemical chart*

"Be Safe! Explosions, fires, and asphyxiations frequently occur from accidental combinations of these commonly used hazardous chemicals and the use of unsuitable solvents for cleaning equipment," states a wall chart offered by Eco Engineering Co. The chart is yellow and black, sturdy cardboard, free for the asking.

**Circle No. 311 on reader service card**

### *Closed circuit TV*

"What Every Businessman Should Know About Closed Circuit TV" is a 9-page illustrated brochure by General Precision, Inc., explaining industrial and commercial television in layman's language. Lightly written with a serious intent, it covers many safety applications.

**Circle No. 312 on reader service card**

### First aid kit

A new 4-page brochure on units and unit first aid kits is available from A. E. Halperin Co. All kits are illustrated. The brochure mentions bandage compresses, antiseptic swabs, ammonia inhalants, and burn ointments.

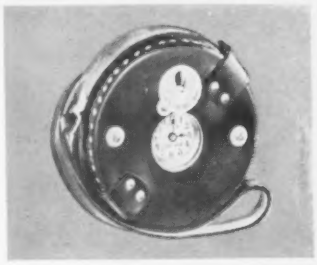
**Circle No. 313 on reader service card**

### Respirators

Pulmonsan Safety Equipment Corp. literature reviews a line of respirators "to meet every need." Included are data on the firm's All-Purpose series, Dust series, and Economy series.

**Circle No. 314 on reader service card**

*continued on next page*

A KEY MAN NO PLANT CAN DO WITHOUT

He is the man who registers the key in a Detex Guardsman Watchclock Station. He is your company's No. 1 trouble-shooter.

He smells smoke and stops a fire before it turns the plant into smoldering embers. His quick wits prevent a critical machinery breakdown that might halt production and cause serious profit loss. He saves your plant from dozens of mishaps—explosion, fire, theft, vandalism.

You know he is on the job because he's supervised by a tape-recording Detex Guardsman Watchclock—the clock with EXTRA capacity for long weekends and plant closings. Saves on supervisors' overtime, too.

Can you risk being without the protection of a Detex Key Man? Write today for information.

Write today on your letterhead for FREE Detex Property Protection Manual. (2-10 copies, 20¢ each; 11-50 copies, 15¢ each; 50 or more copies, 10¢ each.)

DETEX
WATCHCLOCK
CORPORATION
Dept. O-3, 76 Varick Street
New York 13, New York

**Circle No. 25 on reader service card**

# Warn...or inform them of NO Admittance with Stonehouse Signs

Stonehouse NO ADMITTANCE Signs play an important part in your safety program to warn workers of dangerous areas . . . inform visitors where to go.

All Stonehouse Signs are designed and manufactured to accomplish this purpose in the most effective manner. They are of the highest quality workmanship and materials and comply fully with American Standard Specifications.

Hundreds of different stock-worded accident-prevention signs are available for prompt shipment. Usually the same day your order is received.

*Write today for our free, full-color, 64-page catalog, plus information about custom-printed signs to meet your specifications.*

Signs Since 1863

Stonehouse SIGNS

STONEHOUSE SIGNS, INC., 9th and Larimer Streets, Denver 4, Colorado

Circle No. 26 on reader service card


## Useful Literature

*continued from page 25*

### *"Quiet-Duct" silencers*

A new catalog showing the largest line of package silencers ever available is issued by the air conditioning department of Industrial Acoustics Co. It shows acoustic performance of these Quiet-Duct silencers and lists over 44 unit sizes and 90 multiple unit sizes by airflow.

**Circle No. 315 on reader service card**

### *Alarm systems*

A Walter Kidde & Co. illustrated brochure describes ultrasonic burglar detection-alarm systems. This 2-color, 12-page prospectus is aimed at promoting what the company terms the greatest advance in the last quarter of a century in the field of intruder detection.

**Circle No. 316 on reader service card**

### *Fire-retardant ceilings*

A 12-page color booklet by the Armstrong Cork Co. covers fire-retardant ceilings. Called "A Significant New Development in Fire-Retardant Ceilings," it includes specifications for the acoustical lay-in units, how they withstand heat and fire, and how they may be removed easily for access to concealed utilities.

**Circle No. 317 on reader service card**

### *Foot hygiene*

How industrial bathers are protected from athlete's foot is the subject of a multicolored folder by Onox, Inc. The folder tells how Onox toughens skin by use of a footmat or footsprayer, refreshes tired feet, stops excessive perspiration.

**Circle No. 318 on reader service card**

### Glove selector

The Glove Division of Riegel Textile Corp. offers a selector manual covering basic types and styles of work gloves. Full of quick-reference, illustrated data, the guide is complete with information on basic cuts, cuff styles, and specifications. It carries case histories of plants where new work gloves increased safety, lowered costs, boosted production.

**Circle No. 319 on reader service card**



Circle No. 27 on reader service card →

Thomas Maloney, Jr., Safety Director
Birdsboro Corporation, Birdsboro, Pennsylvania

# Safety booms at Birdsboro

Savings from a new safety program at Birdsboro Corporation are a fat $100 per month. Lost-time accidents have been cut 70%. These are results of 4½ months' work by Safety Director Thomas Maloney, Jr., with the help of some new concepts in eye protection by Willson.

Eye injuries, formerly occurring at the rate of 20 per month, now average only six. Safety and employee acceptance are booming. Medical expenses and costly work interruptions are dwindling fast. Willson's new MonoSpec® safety glasses are simplifying fitting and reducing inventories in a way that is paying for the program out of savings. (turn the page for details)

**WILLSON®**

SAFETY IS WORTH WORKING FOR
WILLSON
SAFETY CLINIC

*turn page*

# New concepts in eye protection boost safety and savings four ways

Your problem is "people protection"—50% people and 50% protection.

This program at Birdsboro Corporation shows how the right safety glasses can solve both problems conclusively —easily, and quickly.

Safety Director Thomas Maloney, Jr., is standardizing on Willson's new, smart-looking MonoSpec for protection against conventional machining hazards. His program, now approaching 100% coverage, got off the ramp fast, producing these important results:

1. **70% reduction in lost-time accidents.**
2. **$100 per month saving in direct labor costs.**
3. **Enthusiastic worker acceptance of a full eye program.**
4. **Elimination of fitting problems and large inventories.**

"Our loss in direct labor averages $7.80 an eye injury," says Mr. Maloney. "So our monthly average of 20 injuries was costing $1872 a year, minimum. Costs were inflated even further by medical care, high insurance rates, and time lost by men assisting injured workers or breaking in replacements."

### *Safety committees win worker consent*

Committees from two Birdsboro plants evaluated more than 40 different types of safety glasses and goggles designed for grinding, turning, and welding. Their selection of Willson MonoSpecs assured success of the program. Worker reaction was pretested. Acceptance was immediate and enthusiastic, paving the way for complete coverage at minimum cost.

In the words of Mr. Maloney: "MonoSpecs are lightweight, sit softly on the ears and bridge of the nose. The frames and temples can be adjusted easily to fit individual head shapes. Safety lenses don't break and they resist pitting and scratching."

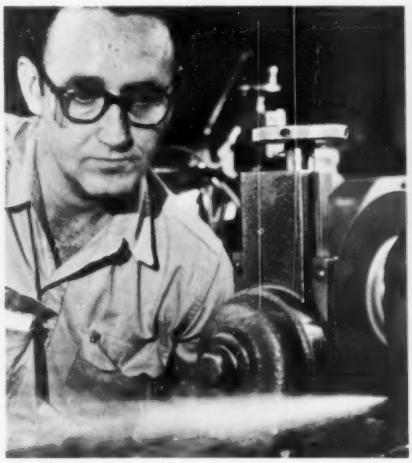
### *One-size bridge cuts hidden costs*

Birdsboro stocks only two MonoSpec lens sizes. The one-size bridge permits fitting 850 employees right from stock. Special try-ons and custom alterations are avoided. A small inventory covers every current and future requirement. Ordering, stocking, and record-keeping are simplified. Mr. Maloney sums it up this way: "Our eye program is efficient, yet the men have the complete protection they need."

Safety Counselor David W. Miller, Industrial Products Company, Philadelphia, worked closely with Birdsboro on all aspects of the program.

Ask your Willson safety equipment distributor for information about safety surveys, economic justification of programs, cost-reduction methods, and safety equipment application. He has Willson protectors for all *four* dimensions of safety—many new ideas in respiratory, hearing, eye, and head protection.

MonoSpecs with plastic sideshields, Willson chipping goggles, and Kover-Mor® goggles provide protection workers at Birdsboro Corp. readily accept—can be worn with Willson MonoMask® respirators (right). MonoSpecs are available with popular F7 lens shapes, flesh- or charcoal-color frames. With sideshields, they offer excellent ventilation and unimpaired peripheral vision—clear, green plastic, or wire screen.



safety is worth working for

**WILLSON**®

**Willson Products Division**
**Ray-O-Vac Company**
Reading, Pennsylvania
In Canada: Safety Supply Company

**Occupational Hazards**

*the magazine of industrial safety • fire protection • housekeeping*

MARCH 1961

# How Tight Is Your Plant Security?

So you already have a security program. How good is it? Does it do what you want it to, and do you want it to do enough?

An Occupational Hazards editor visited a paper mill in Maryland.

"You can't get beyond the front desk," the safety director explained as he met the editor at the main office, "unless you wear this visitor's badge. Be sure to leave it with the guard at the gate when you go. He can make trouble if you don't have it with you."

The plant closed at 4:30. Shortly after 5, our editor sauntered out of the safety office, across the parking lot, and to the gate. The gate was open. No guard was in sight. Our editor waited 10 minutes, wandered about plant buildings, drifted into the main office. There were no locked doors, no one to take his badge. Finally, he left—and mailed the badge back to the company 3 days later.

"I could have called Timbuctoo from the reception desk phone," he said later, "and no one at the mill would have known who did it."

### *What can happen without security*

Suppose you don't have a security program. You have a lot of valuable stock in your storage yard, and your plant and machinery are worth $100,000. You use a good many solvents.

So a small boy, as small boys will, enters an open door. It's noon, and nobody pays any attention. People are too busy eating. The boy finds a Coke bottle with dark liquid in it, looks around cautiously, drinks the stuff fast. A month later, his parents sue you for enough to bankrupt you, what with business loans and

*continued on next page*

**DAY AND NIGHT,** this guardhouse at the main entrance to the Phillips Petroleum Co. refinery at Kansas City (Mo.) keeps track of employees and visitors as they enter or leave refinery grounds. Guards are more than receptionists and traffic police, however; they stand ready always to direct emergency vehicles in case of fire or major accident and to give first aid.

## How Tight Is Your Plant Security?

*continued from page 29*

the recession and all. The stuff in the bottle was acid. And the boy's vocal cords are gone.

That happened 3 years ago at an Ohio plant. Consider the experience of another plant in the Midwest:

It was early evening, and it was fall. The air was nippy. A 12-year-old craved excitement. He felt a little chill. A plant door stood open. He went through. Six hours later, the plant and all the jobs and profits in it were gone. The boy had built a small bonfire in the middle of the machine shop floor. He wasn't really bad. He just wanted to keep warm. That's what he told police.

### *Security aims are the same for all*

You could multiply these examples a thousandfold, quite easily. It doesn't matter what you make or process or assemble, and it doesn't matter how large or small your business is. You still need a security program, if it's no more than a burglar alarm and a light gleaming over the face of the safe.

The bigger your plant is, the more valuable your stock, the more complex your operations, the more detailed your security program should be. If you run a one-horse machine shop that sells its whole output to some original equipment manufacturer, you don't need the setup you'd require if you had 10,000 employees working 3 shifts on 18 hush-hush contracts

But basically the principle behind security is the same: *Security aims at protecting your property, your profits, and your people.*

### *Use a private police force*

Perhaps the simplest way to get that protection cheaply, if you're in a small firm, is to tie up with a private police force.

You can install alarms that sound off like an old sailing skipper shouting orders in a hurricane, or alarms that silently send code signals to a central headquarters. In the first case, if your business castle is invaded, someone nearby will hear and call police. Or the noise will scare off trespassers. In the second case, the silent alarm will bring a private policeman, often having the authority of a special deputy, in a hurry.

You can arrange to have a private patrolman stop at your place of business regularly to test doors and look in windows and make a cursory inspection to see that everything's all right. That usually goes with the central station alarm service, sometimes with the installation of the loud-voiced gongs or whistles.

If you have something especially valuable you must keep in your building overnight or over a weekend—cash, for example, that you couldn't deposit—you at least should tell your city police about it. In most places, even in small towns, patrol cars or patrolmen

*continued on page 60*

# Your Guard Force: Rent or Buy?

SHOULD YOU buy your guard force—hire, train, pay your own men? Or should you call in an outside guard service on a contract basis?

Those are questions you'll have to answer for yourself. No blanket rule applies. But we can tell you in general what an outside contractor probably will do for you.

- *Lower your payroll.* Contractors usually can assign fewer guards than you would have to do, to arrange 7-day-a-week service. And you save the payroll taxes, insurance premiums, and fringe benefits that hike your pay costs.

- *Eliminate other costs.* Uniforms and equipment run as much as $250 per guard, without considering replacement and maintenance. The contractor supplies them, along with weapons and any other necessary extras.

- *Cut problems due to absenteeism.* If your own guard gets sick, you have to replace him. That may be a hard job. A contractor replaces his guards easily, without additional cost to you.

- *Reduce labor relations problems.* You have no union to dicker with, no grievances and discipline to worry about, when a contractor provides your guards. Your own guards may not work out well in all cases because they fraternize too freely with other employees. Contract guards stand out from plant workers, don't get on a highly personal, buddy-buddy relation with them.

- *Furnish extra guards on short notice.* That can be vital. Fire, windstorm, or flood hits your property; a contractor instantly can put on extra guards as protection against looting. Your business runs one shift, two shifts, three shifts, depending on the season; the contractor's security force expands and contracts according to need, without trouble for you.

- *Tighten security.* It's not easy to hire good plant guards. A contractor chooses his guards well, trains them thoroughly, supervises them carefully. He knows what measures are called for when you undertake a defense contract, and he knows exactly what to do to protect your own secrets.

**GULF OIL** workers star on TV as part of a refinery security program. Two 17-inch monitors receive pictures from closed circuit cameras at a plant gate, compare faces of workers to faces on badges.

# TV Controls the Doorways

## ...coming in

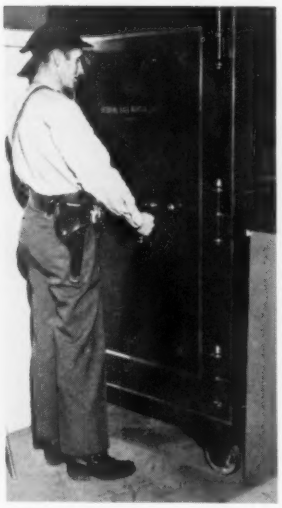
When a worker at the Girard Point Refinery of Gulf Oil Corp. (Philadelphia) approaches the employees' gate, he stops in front of a small wicket. Floor markings show exactly where he should stand to pose full-face for a closed circuit television camera. He puts his identification in the wicket, and waits. TV picks up a split-screen image of his face and badge, passes it on to a monitor in the main gatehouse, 350 feet away. If the guard watching the monitor accepts the double identification, he pushes a button that unlocks the turnstile at the gate. The worker passes through, only to be followed by another TV camera that keeps him in sight as long as he's near the turnstile. If the worker and the guard have questions to ask each other, they talk freely over an intercom system. The plan lets 150 refinery workers reach their jobs more quickly and conveniently than ever before, saves a round trip detour of almost 700 feet through the main gatehouse.

## ...and going out

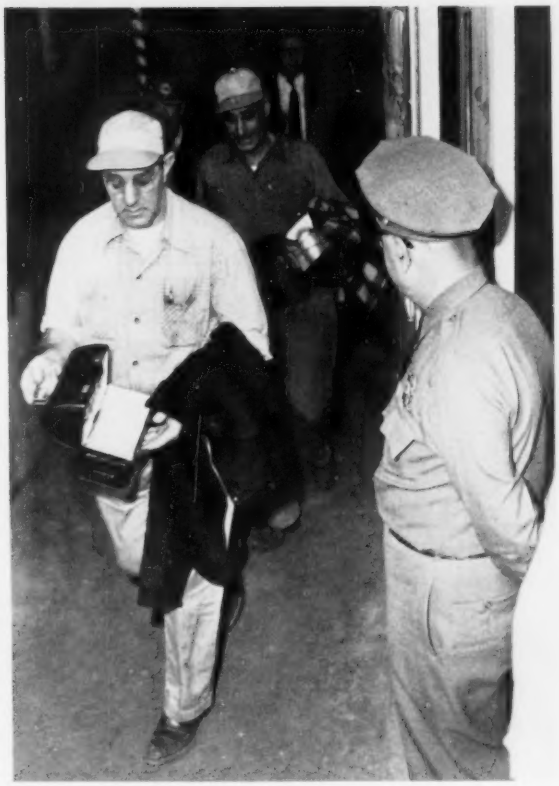
When the worker leaves, he punches out and again has his picture taken by a television camera. This time, a guard in the main gatehouse, if he's satisfied with what he sees, unlocks the *exit* turnstile. A single camera focuses on exit and entrance turnstiles. Signs carry full instructions about talking to the guard over the intercom as well as about posing for the cameras. The TV system eliminated the need for an extra guard at the auxiliary gate. Production workers and guards alike have approved the plan. • •

**A CLOCK PUNCHER**—that's what this Gates Rubber Co. (Denver) guard was. A watchclock makes sure every part of the plant is covered, provides a permanent record of the efficiency of each guard. Some clock systems automatically notify a central station if a guard doesn't punch in on time, permit immediate investigation of the lapse, sometimes save a guard's life.

# How Many of These Security



**CHECKING OUT KEYS** to workers who need to get into locked areas is a normal part of a guard's job (left). So is answering the phone—600 calls a day pour into the timehouse of the plant where this was taken. An armed guard (center) tests the lock on a credit union safe several times each night during his regular patrol. Two plant protection men (right) test water pressure in a company hydrant. One of them checks every part of the plant sprinkler system at least once a week.

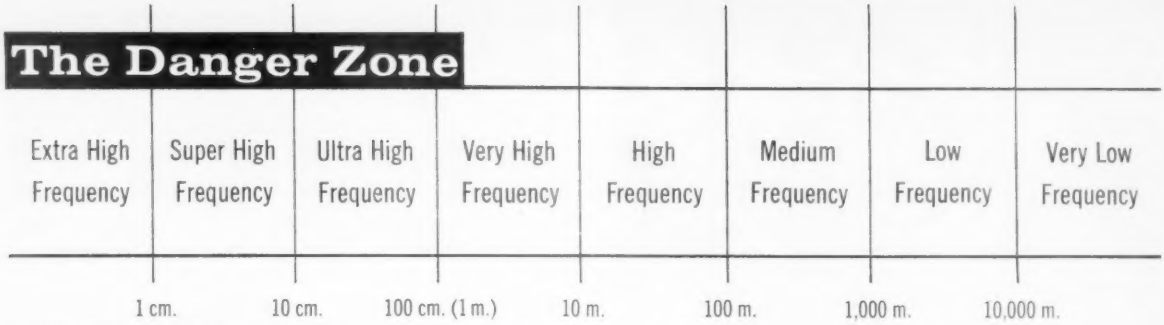


**NEED TIGHT SECURITY?** Lockheed Aircraft Corp. (Burbank, Calif.) did. So it required departing workers to show lunch boxes and packages to guards. Special passes were called for to take company property out of the big plant.

**NOT A CONCENTRATION CAMP,** but an industrial plant watchtower. From it, guards could see over a wide area. Idea: To prevent small fires from growing into big ones; to prevent sabotage and trespassing and violation of tight security rules.

# Services Does Your Plant Need?

**A RELEASE SLIP,** given by a company guard to an employee, meant the hose the man carried was bought at the employee store and might be taken out of the plant (left). Above: A Phillips Petroleum Co. (Kansas City, Mo.) guard opens a gate across a railroad spur to let cars move out of the refinery yard.




**WHAT ARE MICROWAVES?** They start as electromagnetic impulses in a high frequency oscillator tube, like the klystron. As the chart shows, the dangerous waves range below 1 meter in length.

In many industries—foods, drugs, utilities, aircraft, missiles—men are in danger

# When Microwaves Run Wild

**By E. Molly Watling**

*A brand new hazard breathes in the face of industry: very high frequency electromagnetic waves (microwaves). No longer are they confined to communications, to aircraft and surface ships, to radar. Now, microwaves fuse, launch, and guide missiles, heat and sterilize foods and drugs, induce chemical reactions. Chances are, if you're with a big public utility or in the food, chemical, aircraft, or missile industry, you're already dealing with them.*

*Treat them with respect. This article tells why. Mrs. Watling, a frequent contributor to industrial magazines, tells of an accident with microwaves at Shawnee Air Force Base (Lockport, N. Y.). It involved six men: Kenneth Sahl (North Tonawanda, N. Y.), Edward Legeman (Newfane, N. Y.), James P. Randolph (Lockport), Dennis F. Murray (Wrights Corners, N. Y.), Giles Ledford (Lockport), and Julius E. Petrison (Williamsville, N.Y.). All except Petrison work for Philco Corp. He's with General Electric Co. Lockport is near Buffalo.*

LAST YEAR, at Shawnee Air Force Base, a maintenance man removed the lead shield from a high energy klystron tube. Someone left the power on. Six technicians got dangerous doses of microwaves.

The klystron tube is enclosed in the radar antenna. It sends out high-powered impulses and generates radio frequency energy. Voltage output is classified military information. Authorities estimate a killing dose of klystron tube microwaves at around 3,000 roentgens. The three men closest to the unshielded tube at Lockport received from 300 to 2,000 roentgens.

### *Symptoms: headache and nausea*

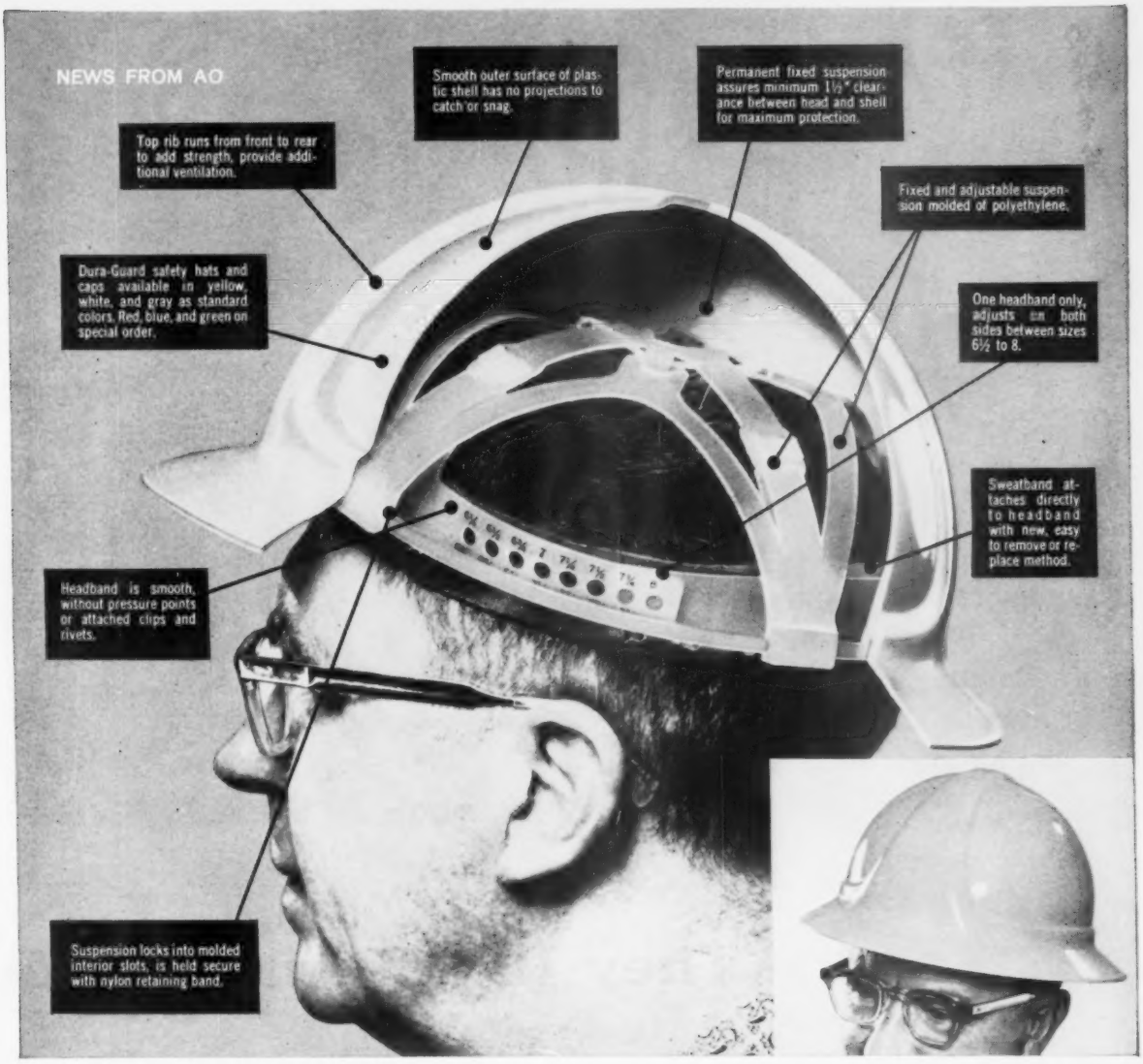
The radiation overexposure was discovered only after several civilian technicians complained of bad headaches and nausea. Investigators located the radiation leak while the men were receiving first aid.

When the cause of their trouble was pinpointed, the six workers who had been in the danger zone were rushed to the University of Rochester School of Medicine & Dentistry for treatment. The school does research on the biological effects of radiation. Doctors called in research scientists as consultants.

All six technicians were hospitalized. Those who were some distance away from the tube showed no immediate effects. They were discharged, with instructions to return for periodic physical examinations to detect any delayed reactions.

The three men closest to the tube did show immediate effects. They lost some hair, were nauseated, had severe headaches. Their skin reddened. One observer said: "They looked like they had a bad case of sunburn." They felt extremely sleepy on occasion.

*continued on page 73*




# Now: one safety hat to meet all requirements

Introducing the AO Dura-Guard . . . an *all-new* safety hat designed for *universal use*. Shells and suspensions are molded plastic, without holes or metal parts. New Dura-Guard hats and caps meet or exceed all standard specifications, and *every* Dura-Guard may be used wherever dielectric protection is required. Dielectric strength in accordance with E. E. I. specifications (April 1954) is available in individually tested hats and caps.

The injection molded shell is of uniform thickness throughout critical areas. Plastic suspension and headband are lightweight, comfortable, long-wearing, nonconductive, easy to clean. Headband adjusts on *both* sides to stay centered in shell, eliminate floating. Sweatband can easily be slipped out for cleaning *without removing any other part*, is made in telescoping halves for comfort and economy. Front half, which tends to soil or wear first, can be replaced at minimum cost.

For full information, contact your AO Safety Products Representative, or write for Folder S-1456.

*Your Surest Protection* . . . AO SURE-GUARD Products

**American Optical**
**COMPANY**

SAFETY PRODUCTS DIVISION • SOUTHBRIDGE, MASSACHUSETTS

***Circle No. 28 on reader service card***

Columbus Coated Fabrics has a waiting list for appointments to its fire brigade. The company can afford to be choosy because . . .

# They Pay Extra for Top

"I'D GUESS our average fire brigade member earns $225 to $250 a year in addition to his regular earnings." William F. Ballard, industrial relations director, Columbus Coated Fabrics Corp., told that to an OCCUPATIONAL HAZARDS editor.

Brigade members get premium pay for drilling time at CCFC's Columbus (Ohio) plant. This accounts, in part, for the fact that Joe Pitt, plant fire chief, never has to solicit volunteers for fire brigade duty. His waiting list of applicants usually has as many names on it as there are on the active brigade roster. Pitt can afford to be choosy, can demand top performance.

Manufacturing processes used by CCFC in the manufacture of upholstery materials, oil cloth, wall coverings, and laminants require high temperatures, extensive use of solvents. There are also static electricity hazards to contend with.

And yet, year in, year out, CCFC turns in outstanding fire safety performances. Brigade members have more plaques and trophies than a Balkan general has medals. Wayne Jenkins, chief of the fire prevention bureau, Ohio Fire Marshal's Office, describes CCFC's fire protection program as "one of the best in the State of Ohio."

CCFC's fire squad has 60 members. Each man is trained in all aspects of firefighting. Men are assigned duties by the chief when they arrive at a fire.

Applicants for the fire squad are screened by Fire Chief Pitt. They take an IQ and mechanical aptitude test. Their scores, coupled with their employment record, help Pitt make his selection. The top several candidates are scheduled for complete physical examinations.

CCFC Industrial Relations Director William F. Ballard told us:

"In reviewing the employment record, we make sure we select only men with good attendance records. Absentees can cripple a fire brigade.

"The physical examination, of course, is a must.

# Fire Protection

Brigade duty is out of the question for men who have bad hearts, high blood pressure, or the like."

Squad members are divided into two sections and drill 4 hours a month. They get overtime pay for drill time.

Approximately 2 hours are spent on drill grounds fighting sample fires. Here squad members get practice in the use of various types of extinguishers. An hour of skull sessions teaches squad members the latest firefighting techniques, reviews fundamentals, and appraises recent squad performances. During the fourth hour, squad members tour the plant to reacquaint themselves with plant layout and keep up to date on storage and flow patterns in the shop. Any remaining time gives fire brigade instructors a few extra minutes to drive home a point when squadmen look hazy in class or ragged in drills.

Assistant Fire Chief Glen Barr of the Columbus Fire Department is a regular instructor at CCFC brigade training sessions. His men visit the plant regularly to review layout and be briefed on manufacturing processes.

The CCFC plant is 100-percent sprinklered. The sprinkler system is checked regularly. When repairs are needed, they are undertaken immediately. A fire brigade member stands fire watch while repairs are made. If a fire flashes while sprinklers are inoperative, he sounds an alarm. A brigade man also stands watch over maintenance welding, which is only done after a permit is issued.

The plant's fire alarm system automatically transmits an alarm to the Columbus Fire Department.

The alarm system and fire doors are tested weekly. In addition to the city water supply, the plant has a 100,000-gallon water tank.

CCFC brigade members have modern, well-maintained equipment. Their record shows they use it like real pros. During 1959, the plant had 30 flash fires. In every instance, the fire was out by the time the city firemen arrived. Fire damage was nominal. • •

*Arma Corp. photo*

industrial

to

# What's Your Part in

THERE'S NO better path to proper worker placement, reduced absenteeism and labor turnover, and improved accident prevention than a sound medical program. And the basis of such a program is the physical examination.

"A good physical examination," says Dr. Joseph Solomayer of the Euclid Clinic Foundation's department of industrial medicine, Cleveland, "should include all organs. For the eye examination, a special eye screening machine should be used which will measure depth perception. An eye chart alone gives no clue whatever to depth perception."

### *More real specialists needed*

The doctor best qualified to give a preemployment physical examination is one who has been especially trained in industrial medicine.

If an industrial physician is not available, it's up to the safety director to see that the doctor who does serve his plant tours it, learns hazards peculiar to the industry, and knows the physical requirements of each job.

There are 3,000 members of the Industrial Medical Association. Three hundred are qualified by special educational training to serve industry. Dr. Solomayer is one. Fellowships are granted in industrial medicine to 25 medical school graduates per year. These are just the initial stirrings of a comparatively new group in medicine. At the present rate of progress, it's bound to be a long time before there are enough industrial physicians to go around.

### *What a specialist does for you*

If you can get an industrial physician, he'll add an important plus to your plant medical program. Dr. Solomayer gave us examples of the extras the industrial physician offers.

A man comes in for a preemployment physical. His prospective employer is a plastics manufacturer. Immediately, the industrial physician, because of his knowledge of the plastics industry, takes special note of the man's skin sensitivity. In developing medical history, he looks for signs of past skin irritation or infection. The industrial doctor knows the man will handle resins, and he tailors the examination to specific industrial needs.

If this same physician examined a machine operator for the auto industry, he would be concerned about

There aren't enough

physicians to go around — so it's up to you to help

your M.D. relate his medical knowledge

job health and safety requirements

# Preemployment Physicals?

the speed of the man's reflexes. In examining a truck driver he would put emphasis on the man's depth perception and his visual field.

The industrial physician knows a man who has a heart condition and who runs a boring machine has a sitting-down job. In many cases he would be better off on the job than at home, where he might be inclined to dig up the garden.

The industrial physician's special knowledge aids him also in diagnosing ailments. He knows the man who visits his office and complains of cramps and weakness doesn't have lead poisoning even though he works with lead heated to 100°. For the doctor realizes that lead must be vaporized at 650° to 700° to be inhaled.

### *You can help your doctor this way*

What should you as a safety director provide your plant doctor? Dr. Solomayer's list includes:

► *Job breakdown, complete with description of duties and outline of physical requirements and work environment.* Tell the doctor about the weights the man lifts, his posture—amount of time spent standing and sitting, and his movement pattern. Tell him about the health and safety hazards of the work environment and how much they're controlled.

Solomayer, who has had extensive experience with industrial clients, comments, "This kind of in-depth information we never seem to get from small plants. For that matter, not 1 out of 20 of the big ones supplies it. With some, it's a question of not being aware of our need. With others, I think it's primarily a matter of inability to communicate—the same problem that afflicts industry everywhere—unclear and incomplete reports."

► *Comprehensive accident investigation that discloses the real cause of the accident.* Too often, reports refer to carelessness, and let it go at that. Frequently, accidents originate in the mental outlook of the workers. Dr. Solomayer cited this case from his own experience in illustration:

A skilled craftsman, creative in a challenging job, was demoted because of a cutback. He was assigned to hook links in chain, which was then degreased. The man quickly became bored and unhappy. He began making trips to the nurse with nagging, trivial complaints. He visited the dispensary more in 3 months than he had in the previous 7 years.

*continued on page 73*

A

B

# The logic of placing your safety eyewear

Circle No. 29 on reader service card

# business with the man from MSA...

**A COMPLETE VISION PROTECTION PROGRAM**

- **A.** Full line of eye and face protection for wide selection
- **B.** Convenient cross-country stocking points for ready availability
- **C.** Safety eyewear prescription service for corrective-protective lenses
- **D.** Modern vision testing methods for valid, reliable results

You can count on a complete vision protection program, including Rx service, when you place your safety eyewear business with the man from MSA. This single source of safety eyewear service answers every program requirement. A wide selection of optional features makes this program even more attractive.

To help you determine how this service can benefit you, two new publications are now available: *The M-S-A Eye and Face Protection Catalog*, and *The M-S-A® Sightgard Prescription Safety Eyewear Program Booklet*. Please write us for your free copies.

**MINE SAFETY APPLIANCES COMPANY** • Pittsburgh 8, Pennsylvania MSA

*MSA backs up its label with selection, quality, research, experience*

## SAFETY FORUM

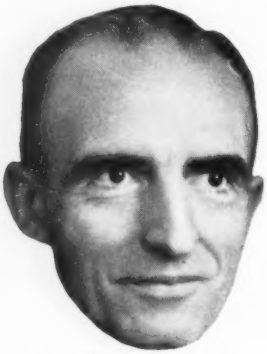
Another in a series
of exclusive interviews on
hotly debated safety subjects

### This Month's Question:

*Should safety directors report to the personnel or industrial relations manager or to a production executive*

### We Interviewed:

OCCUPATIONAL HAZARDS editors talked with R. G. D. Anderson in Toronto, with Joseph J. Moore in Chicago. Both men took issue with the standard practice of putting safety directors in personnel departments.



**R. G. D. Anderson**

● R. G. D. ("Gord") Anderson is general manager of the Industrial Accident Prevention Associations, Toronto, Ontario, and past president of the Canadian Industrial Safety Association. His job requires him to encourage, help set up, and administer plant safety programs across Ontario, among almost 27,000 firms. His staff inspects thousands of plants each year.

**Joseph J. Moore**

● Joseph J. ("Joe") Moore, now a safety director with a Federal agency, has had almost 30 years' experience in industrial safety. He's lobbying hard in California, his home State, to slash insurance costs for firms with full-time safety men.

# Get Safety out

**Q.** Most companies, Mr. Anderson, put the safety director in the personnel or industrial relations department. Can you suggest why?

**A.** Probably because accident prevention has been thought of as human relations work. Employee relations and benefits have come under one or the other of these departments, so many have felt this was the proper place for safety work, too. Some firms have put accident prevention under production.

**Q.** Which do you recommend—safety under production, or under industrial relations or personnel?

**A.** Wherever safety is *successfully* administered by an industrial relations or personnel department, we feel that's fine. But in those companies where the safety program is not successful, we recommend they consider putting accident prevention under production. For a company that has had no organized safety program, we recommend definitely that accident prevention be put under production. Accidents arise out of production processes and are best controlled by those responsible for production. Personnel and industrial relations are staff functions, without line authority. Accident prevention is even more important from a cost standpoint in difficult business periods than in boom times. If it is part of production, there is less tendency to curtail safety work when business is poor and staff functions are likely to be tightened.

**Q.** Do you think the safety director should be a staff or line authority?

**A.** Whatever his place on the organizational chart, he should be a staff man. His work is primarily advisory. It involves fact-finding and training. He should have authority only to recommend closing down unsafe operations, except when his

# of the Personnel Department!

direct superior is absent or an emergency arises. Authority to close down should be primarily a line responsibility.

**Q.** Does putting accident prevention under the production department change management's attitude toward the safety program?

**A.** Yes. It encourages top management to be more interested in safety, because production is one of its major areas of attention. Executives usually think of accident prevention as an expense, because it involves outlay of money for guards, protective equipment, training, and educational materials. The tendency to think this way is stronger when safety is attached to personnel, because personnel generally is not thought of as a profit-making department. Executives can, however, be convinced that accident prevention is a sound investment, as well as humane, when they learn what accidents really cost. Our Industrial Accident Prevention Associations can show in great detail the cost of individual accidents. We point out to employers that workmen's compensation is not a fringe benefit, but insurance that benefits both employer and employee .

**Q.** Is it more expensive for the safety department to work under production than to work under personnel or industrial relations?

**A.** Salaries should be higher. In general, production executives are paid more than personnel executives. If the safety director is to command the respect of production people, he should be both well qualified and well paid. All other expenses should be about the same.

**Q.** Most companies hold foremen responsible for enforcing safety rules. Does your plan for putting the safety director under a top production executive do away with that?

**A.** Not at all. The foreman should be responsible for enforcing safety regulations in his department. The safety director can work with foremen without conflict by becoming, in effect, an assistant to the foreman, so that the foreman will turn to him for advice when he needs it. Foremen who have been properly taught this plan are enthusiastic about it.

**Q.** Does top management usually go along with the idea of putting safety under production?

**A.** Yes, when the company's present safety organization is not producing the results it should.

**Q.** Have unions cooperated?

**A.** Unions generally cooperate with an experienced and qualified safety director, regardless of his place in the company's organization. Putting the safety director under production, however, actually seems to improve labor relations. In too many places, employees and their unions feel management is more concerned with production than with production-with-safety. When production executives are responsible for safety, they are likely to take a great deal more interest in it. Employees and unions see the results, and relations with the company and its management improve.

**Q.** How long have you tried to put over your idea?

**A.** Since 1953. We have many examples of its success. One tire manufacturer moved its safety director from personnel to production and cut its compensation cases from 58 in 1959 to 21 in the first 11 months of 1960.

**Q.** What groups have given you the most opposition?

**A.** Mainly personnel departments that are not widely experienced in safety work. This has been due to the usual desire not to lose an established departmental task, or to normal human resistance to change. We try to overcome the feeling by showing that accidents arise out of production work and that they can be controlled by the same methods used to control production — that is, by well-planned policies and direct line authority.

*continued on page 70*

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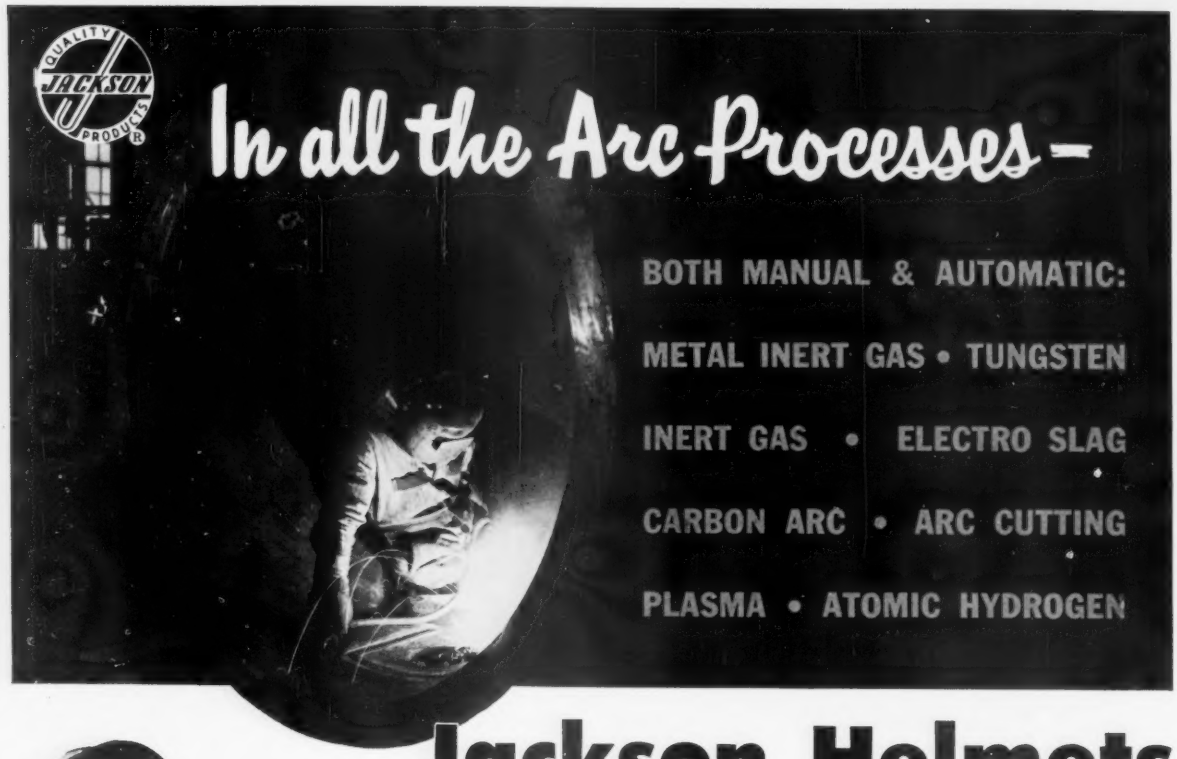


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Shown: handy plastic lift-front type.

H-10A

**Curved Shell Vulcanized Fiber**
With choice of three lens holders.
Shown: front-loading metal holder.

H3-AP

**Narrow Shell Fiber Glass**
With choice of three lens holders.
Shown: non-conductive plastic holder.

H-80AP

**Straight Shell Vulcanized Fiber**
With choice of three lens holders.
Shown: non-conductive plastic holder.

H9-A

**Straight Shell Fiber Glass**
With choice of three lens holders.
Shown: handy lift-front type.

Just pick what's best for you—Jackson offers twenty different models. Choose the shape you like, the material you like, the lens holder you like. Add Jackson's non-conductive friction pivots, all-nylon Adjust-O-Lok headgear, and adjustable helmet stop. Check on the quality Jackson line soon.

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## Part I

# How To Plan a Safety Program

*This month, we begin a 12-part series on the fundamentals of industrial safety management. We shall have no theories of statistical control, no prejudice that favors one kind of successful program over another. We shall report, instead, as simply as we can, how to set up a safety program, what you need to keep it going, and how it will benefit your plant. Even if you have a program now, you will, we think, find ideas here that will help you.*


THIS MONTH ➧ *How To Plan a Safety Program*

NEXT MONTH ➧ *The Course You Can't Afford To Fail*

*Where Does the Supervisor Fit?*

*Top Management: Cornerstone of Safety*

*Inspection: Useless Without Followup*

*Learning From Experience*

*Fire Prevention: Fight for Survival*

*Two Keys to Workers' Welfare*

*A Clean Plant: Safety's Strong Ally*

*Fill the Gaps in Your Knowledge*

*Your Role As a Good Neighbor*

*Adapting Safety Basics to Your Plant*


FIRST MOVE in establishing an industrial safety program is to find out what hazards you face. It requires three steps:

- ► Inspect the plant.
- ► Talk with supervisors and technical people.
- ► Review your workmen's compensation claim records.

The inspection must be thorough and unhurried. Carefully scrutinize materials, methods, production flow patterns, machinery and equipment.

Are materials sharp or blunt, flammable or fireproof, light or heavy, easy to grip or slippery? Is a job likely to expose hands to hazard, as in a punch press? Do flying chips endanger eyes? Is guarding adequate, protective clothing and equipment worn where it should be? Is working room unrestricted and out of the path of plant truck traffic? Are machines well maintained? Is auxiliary equipment such as dollies, flat trucks, and two-wheelers in good condition?

Those are samples of the questions you'll ask. If you challenge every detail, you'll find many more check points. Take copious notes.

### *Ask a lot of questions*

Question supervisors and technical people. A good supervisor knows plenty about his product, how it's made, where production bugs are likely to develop, and what physical hazards plague his men. Technical people can tell you about the properties of materials being processed.

Finally, look into your plant's history through your compensation claim records. They'll tell you what kinds of accidents happen oftenest and where. Compare your findings with the facts you gathered from plant inspection and from supervisors and technicians.

*continued on next page*

THOMPSON PRODUCTS, INC.
SAFETY DEPT.

JOB PHYSICAL CLASSIFICATION SHEET

Dept. No. _____ Foreman _____ Date _____ 194__
Occupational Code No. _____ Occupational Title _____
Job Description _____
Type Machines _____

PHYSICAL DEMANDS

| Check | | Check | |
|---|---|---|---|
| | 1. Balancing | | 17. Standing—100% |
| | 2. Crawling | | 18. Standing—Partial |
| | 3. Crouching | | 19. Stooping |
| | 4. Climbing | | 20. Sitting—100% |
| | 5. Feeling | | 21. Seeing—Color Vision |
| | 6. Hearing | | 22. Seeing—Depth Perception |
| | 7. Kneeling | | 23. Use of right hand—partial use of left |
| | 8. Lifting—10-25 lb. | | 24. Use of left hand—partial use of right |
| | 9. Lifting—25-50 lb. | | 25. Use of right hand only |
| | 10. Lifting—50-100 lb. | | 26. Use of left hand only |
| | 11. Lifting—100-150 lb. | | 27. Use of both hands |
| | 12. Pushing | | 28. Walking—100% |
| | 13. Pulling | | 29. Working Speed—Fast |
| | 14. Reaching | | 30. Working Speed—Slow |
| | 15. Raising right arm above shoulder | | 31. Eye protection needed |
| | 16. Raising left arm above shoulder | | 32. Work distance |

WORKING CONDITIONS

| Check | | Check | |
|---|---|---|---|
| | 39. Dry | | 47. Moving Objects |
| | 40. Dusty | | 48. Noisy |
| | 41. Exposure to Burns | | 49. Outside Work |
| | 42. Hot | | 50. Sudden Temperature Change |
| | 43. Humid | | 51. Toxic Conditions |
| | 44. High Places | | 52. Wet—Soda Water |
| | 45. Inside Work | | 53. Wet—Oil |
| | 46. Mechanical Hazards | | 54. Wet—Water |

Place a check mark **before** the items applying to performance on Code No. listed above.
Use space **after** items to indicate degree of intensity when excessive.

What is your preference for this job?

Age _____ Height _____ Weight _____ Male _____ Female _____
Special Requirements _____
Comments _____

Foreman _____

(Please complete and return to Safety Dept.)

Form 1487-1

# This System Matches

## You can adapt this idea easily to your own plant jobs and placement needs

THOMPSON-RAMO-WOOLDRIDGE (Cleveland) has used these forms for many years to fit new workers to their jobs.

During the preemployment physical examination, the plant doctor fills out the form at the right. He puts small dots in the squares at the upper edge. The dots show what a worker *can't* do because of physical limitations.

The boxes on the medical form line up with similar boxes at the right edge of the Job Physical Classification Sheet (left). Each foreman makes out a sheet for every job classification in his department. Compare the dotted boxes on the two forms, and you know whether a new man can handle a given job.

A job interviewer can find a place for a physically handicapped applicant very quickly by matching up the new man's medical report with the boxes on a master list of all company jobs and their physical requirements. • •

*continued from page 47*

If compensation records point to trouble where other data did not, find out why. Perhaps the conditions which bred a rash of injuries have been corrected. More likely, particularly if your plant is just beginning to organize its safety program, the unsafe conditions are still there. Return to danger areas pinpointed by claims reports and have another long, slow look around.

### *Report to management in detail*

Do a rough draft of your overall report. Edit it carefully. Make sure it's clear, yet not repetitive.

Before you type a final version, talk about it with all the supervisors it will affect. Eventually, the report will circulate through the executive suite, and supervisors will get copies. Don't let those copies hit like bombs. Give the supervisors an idea of what the report is all about. A few minutes with each supervisor will help insure his cooperation.

Before you turn the report in to the boss, be sure you can support its recommendations with facts. Estimate the cost of initial improvements. Show medical compensation and insurance expense figures. Contrast the cost of putting guards on all fans, for example, with the cost of one serious hand injury. Avoid terms like "frequency" and "severity." They mean little to anyone but a safety director.

Make clear to top management that your report covers only one part of the safety program and that other reports will follow.

### *Set up a good placement plan*

Organize a safety library. Your plant survey probably gave you a pretty good idea of your reference needs. Get a copy of your State workmen's compensation law, copies of your State safety codes, a chemical dictionary, and a medical dictionary. Ask fire and safety groups, your insurance company, trade associations, safety and fire protection magazines, and State and Federal agencies for reference material that applies particularly to safety in your industry. If they can't supply what you need, they'll refer you to someone who can.

Next, learn the physical requirements of every job in the plant. Your first reaction may be to take a deep breath, then mutter hoarsely, *"Every job in the plant?* Do you realize . . . ?"

Well, it's not that hard. Foremen easily can fill out a chart like the one shown with "Match Abilities With the Job." This list, matched against a medical checklist made up by the doctor when he conducts the preemployment physical examination, lets you test the worker's physical capacity against the job he wants in a few seconds.

These checklists deal exclusively with physical limitations, not with illnesses. The M.D. won't balk at listing limitations, but he will not disclose an illness without clearance from the patient. You, as safety director, are not particularly interested in the fact that a worker has bursitis. You're concerned with the physical limitations bursitis imposes. The checklist cuts red tape, and still provides all the information you need.

Make your program aims known to the doctor and plant nurse. See that they know enough about job requirements and hazards, legal and company policy to be able to do a thorough job.

If your employer was conscious enough of the importance of safety to hire a safety director, he should

# Physical Abilities With Job Requirements

Form 1087-6

PLACE A RED DOT ● IN EACH BOX DESCRIBING AN ACTIVITY THE EMPLOYEE IS NOT CAPABLE OF DOING UNDER NORMAL HEAVY WORKING CONDITIONS.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BALANCING | CRAWLING | CROUCHING | CLIMBING | FEELING | KNEELING | LIFTING 10 # TO 25 # | LIFTING 25 # TO 50 # | LIFTING 10 # TO 100 # | LIFTING 100 # TO 150 # | PUSHING | PULLING | REACHING | RAISING RT. ARM ABOVE SH. | RAISING LFT. ARM ABOVE SH. | STANDING — 100% | STANDING — PARTIAL | STOOPING | SITTING | SEEING — COLOR VISION | SEEING — DEPTH PRECEPTION | USE OF R. H. & PARTIAL USE OF L. | USE OF L. H. & PARTIAL USE OF R. | USE OF RIGHT HAND ONLY | USE OF LEFT HAND ONLY | USE OF BOTH HANDS | WALKING — 100% | WORKING SPEED — FAST | WORKING SPEED — SLOW | | |

IS THIS PERSON INCAPABLE OF

| 32 | 33 | 34 | 35 |
|---|---|---|---|
| GOOD — (20/40) | FAIR — (20/60) | POOR | |

VISION Corrected

| 36 | 37 | 38 |
|---|---|---|
| GOOD — (20/10) | FAIR — (20/5) | POOR |

HEARING

| 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DRY | DUSTY | EXPOSURE TO BURNS | HOT | HUMID | HIGH PLACES | INSIDE WORK | MECHANICAL HAZARDS | MOVING OBJECTS | NOISY | OUTSIDE WORK | SUDDEN TEMP. CHANGES | TOXIC CONDITIONS | WET — SODA WATER | WET — OIL | | | |

IS THIS PERSON INCAPABLE OF WORKING UNDER THESE CONDITIONS

| 57 | 58 | 59 | 60 | 61 |
|---|---|---|---|---|
| POOR COORDINATION | NERVOUS INSTABILITY | FAINTING OR DIZZY SPELLS | | |

Does This Person Have

COMMENTS

NAME MASTER No. DEPT. No. HEIGHT WEIGHT

DATE OF BIRTH MALE FEMALE DATE OF HIRE DATE OF LAST EXAM. EXAMINING PHYSICIAN

THOMPSON PRODUCTS, INC. **PHYSICAL CAPABILITIES ANALYSIS** SAFETY DEPT.

**WHITE COPY** — EMPLOYMENT OFFICE **BLUE COPY** — EMPLOYEE'S MEDICAL FILE **PINK COPY** — DEPT. FOREMAN

recognize the need for preemployment physical examinations. If, however, he believes he can get by without them, it's time he learned better.

Explain to him that without preemployment physical examinations the company leaves itself open to claims for both on-the-job injuries and injuries that result from conditions workers had when they were hired.

If an applicant has a hernia and the plant does not discover it, he probably won't tell, since he may feel it will disqualify him. The company then is unaware of how to place the man so that, with his physical limitation, he can work safely. Furthermore, if he files a claim 3 weeks later saying he was ruptured on the job, who is to say he wasn't?

Once the new medical program has demonstrated its value, think about broadening it to include periodic physical examinations, particularly if there are high-hazard departments in the plant.

### *Two allies needed for training*

Now you have the right man hired for the right job, you must see he's properly trained. If he learns the safe way to do the job, he'll develop safe habits. If he gets off on the wrong foot, you're bound to have trouble.

You need two allies — the foreman and the department's best worker — for on-the-job training. Both know every detail of the new man's job. The foreman must impress on him at the start the importance of doing the job safely.

Before turning the man over to the experienced worker, the foreman should demonstrate the right way to do it. He should follow up closely, and frequently ask the experienced worker about the new man's progress. The new man shouldn't be put on his own until he proves he knows all the proper moves and can make them without coaching.

The foreman will emphasize safety to the trainee only if top management makes it clear that accident prevention has high priority. The foreman must realize that he, as well as the safety director, is responsible for safety training.

As a prelude to on-the-job training, the safety director should review plant safety rules in detail with every new employee. Tie accident prevention to production. Don't give the foreman the impression you're adding to his duties. Tell him how your program helps him do a better job.

### *How to organize committees*

Win the foreman's cooperation by consulting with him often, by following up his safety recommendations fast, by establishing a safety committee. At least one safety committeeman should come from each department. Let the foreman appoint him, since they'll be working together on safety.

Give the committeeman a badge to identify him as the department safety man.

Some safety directors appoint enough committeemen to watch all plant areas from their job stations.

Each committeeman should be on the lookout for hazards and recommend to his foreman ways to eliminate them, caution workers about the need for good housekeeping, and report dangerous practices.

Call a meeting of the safety committee once a month. Keep meetings brief. Fifteen to thirty minutes should be sufficient. Confine discussion to what's been accom-

*continued on page 57*

**WINDOW WASHING** duties are shared by Abbott housekeepers, who handle all inside windows plus the outside of those on the ground floor, and by an outside firm retained to wash upper floor windows on the outside. Glass in office partitions also demands housekeepers' constant care.

Abbott Laboratories won't settle for lip service and a periodic plant cleanup drive. They sustain housekeeping efforts with this . . .

# Winning Cleanup

FOOD AND DRUG manufacturers have a lot riding on the success of their housekeeping programs. In addition to its important bearing on accident prevention, housekeeping affects product quality. Plant cleanliness must meet standards set by the Federal Food and Drug Administration.

Abbott Laboratories (North Chicago, Ill.) doesn't spare the horses to keep its plant spotless. A 142-man janitor force goes through 69,500 pounds of floor cleaners and 2,635 gallons of floor finishes in a year's time. Other annual casualties in Abbott's war on dirt include 2,500 mop heads, 360 brooms, and 2,500 pounds of bleached, sterilized wiping cloths.

In the same period, janitors supply washrooms with 8 million paper towels, load dispensing stations with 1¼ million paper cups. It takes manpower, supplies, and plain hard work to keep 1,300,000 square feet of plant and office spotless.

Robert Lee, who heads up the housekeeping crew, sees that training covers all kinds of cleanup. Each crewman is ready to wash windows or walls, run buffing machines, sweep, dust, strip, and rewax floors, or move furniture—whatever plant housekeeping demands.

Because Abbott is a pharmaceuticals manufacturer, there are certain processing areas in the plant where absolute product sterility is mandatory to protect public health. Janitors assigned to these departments clean everything from walls to overhead pipes with high-powered germicidal solutions.

Major cleaning jobs, such as waxing, stripping, and floor sealing, are done at night, when there are fewer employees in the plant. Night men also clean restrooms, offices, and hallways, and dispose of the day's accumulation of waste paper and rubbish.

Housekeeping bosses the world over receive occasional complaints from workers who are sure the cleanup crew tossed away valuable papers. Abbott gets around this by instructing all employees that housekeepers are to throw away only materials which have been placed in the wastebasket. There is one exception: material too bulky to fit into wastebaskets. This

**STERILE** manufacturing area, one of many in the plant, is kept that way through frequent use of high-powered germicidal solutions in order to meet rigid Federal and company standards.

**TWO-MAN** team strips floors of research offices. Strong cleaning solution, vigorous scrubbing, remove the old finish, make way for the new. Every year, Abbott uses more than 69,000 pounds of cleaner.

# Formula

material must be clearly labeled, "To Be Destroyed," and placed beside the basket.

Housekeepers use a special shredding machine to destroy confidential papers.

In a plant tour of Abbott Laboratories, you'll see just about every type of flooring—asphalt, vinyl, terrazzo, marblette, maple, cement, ceramic, and cork. The variety adds to the plant's attractiveness, but emphasizes the need for selecting the right cleaning materials.

Abbott has a 5-man product testing committee. It tries various kinds of floor cleaners on different kinds of floor materials, then inspects from time to time to see how the floor materials react. The committee consults with the engineering department before making a ruling on the acceptability of a cleaner. Considerations include:

► Volume of foot traffic.

► Surface outside the building entrance (paved walks, black top, dirt).

► Color and type of floor covering.

► Care and maintenance requirements. • •

**WORK-SAVING SCRUBBER** wets, scrubs, and dries floors in one operation, cleans miles of aisles every night, in efficient, 1-man operation.

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# RIGHT OFF THE DOCKET

Court decisions in disputed compensation cases

## What about an anxiety neurosis?

AN ON-THE-JOB INJURY is compensable under Kentucky law, but what of an anxiety neurosis which develops while the accident victim is being treated for the injury? Is it compensable?

Ray Jones, a coal miner, was injured while working, when a large rock fell on his back. He received workmen's compensation for 24 weeks. He filed an amended application, claiming that he had developed an anxiety neurosis as a result of the accident and his hospitalization, which required that he wear a full body cast for 20 days.

Jones had worked regularly prior to his accident, but not afterwards, although he had the opportunity. Testimony indicated that he had become chronically and extremely nervous, melancholy, morbid and irritable.

The company maintained that the State's workmen's compensation act covered accidents and their immediate results, not remote and unconnected results. Further, it argued, Jones' nervous condition resulted not from his accident, but from his hospitalization.

Jones argued that, had it not been for the accident, he would not have been hospitalized, and if he had not been hospitalized, he would not be suffering from anxiety neurosis.

The court noted that Jones had been a man "strong in body and mind" prior to the accident, and was now a broken man mentally as well as physically. It recognized a causal connection between the accident and his present condition.

Amended claim allowed.

*High Splint Coal Co.* v. *Jones:* Kentucky Court of Appeals, 338 S.W. 2d 208 (May 20, 1960).

## No witnesses

IS THE testimony of the accident victim sufficient to establish a valid compensation claim?

On February 26, 1957, John Lawrence, a mechanic for Delmont Fuel Company, was installing a trunnion on a shuttle car used for hauling coal. Lawrence's maneuvering room was so restricted, he had to work in a stooped position and support the 90-pound trunnion on his knees. The trunnion slipped, and Lawrence twisted his back. He continued working until his shift ended. The next morning he couldn't get out of bed.

At the hearing, the only evidence was the testimony of Lawrence himself.

The company argued that in order to establish a valid claim, it was necessary to show an injury which had resulted from an accident. Merely to accept the statement of the claimant himself in order to establish the fact of accident would be an invitation to fraud.

Lawrence countered by saying rejection of the employee's testimony would disallow claims of all workers whose jobs isolated them from co-workers.

The court decided on a liberal interpretation of the act for the benefit of injured workmen, maintaining there was sufficient evidence under the circumstances to establish that an accident had happened.

Claim allowed.

*Lawrence* v. *Old Republic Insurance Co.:* Pennsylvania Superior Court, 163 A. 2d 684 (September 16, 1960).

## Chain of causation

THE SUPREME COURT of Missouri had to decide whether the employer's responsibility extends beyond the immediate results of an occupational injury.

Woodrow Wilson Bolen was a truck driver for Commercial Cartage Co. Commercial leased trucks and drivers to A. M. Castle Co. Bolen was working on a truck assigned to Castle when a bundle slipped and struck him in the abdomen. A preexisting cancerous condition was aggravated by the impact.

Bolen underwent surgery, and as a result of surgery, suffered a cardiac arrest, and died.

The company maintained that only the immediate results of the injury were covered by the act, and not those complications which resulted from surgery.

Bolen's widow maintained that there was an unbroken chain of causation from the injury to the death, and if it had not been for the injury, he would be alive.

The court accepted the chain of causation theory, stating that the causal connection in this case was so clear as to make allowance of the claim mandatory.

Claim allowed.

*Bolen* v. *Wallace:* Missouri Supreme Court, 338 S.W. 2d 73 (July 11, 1960).

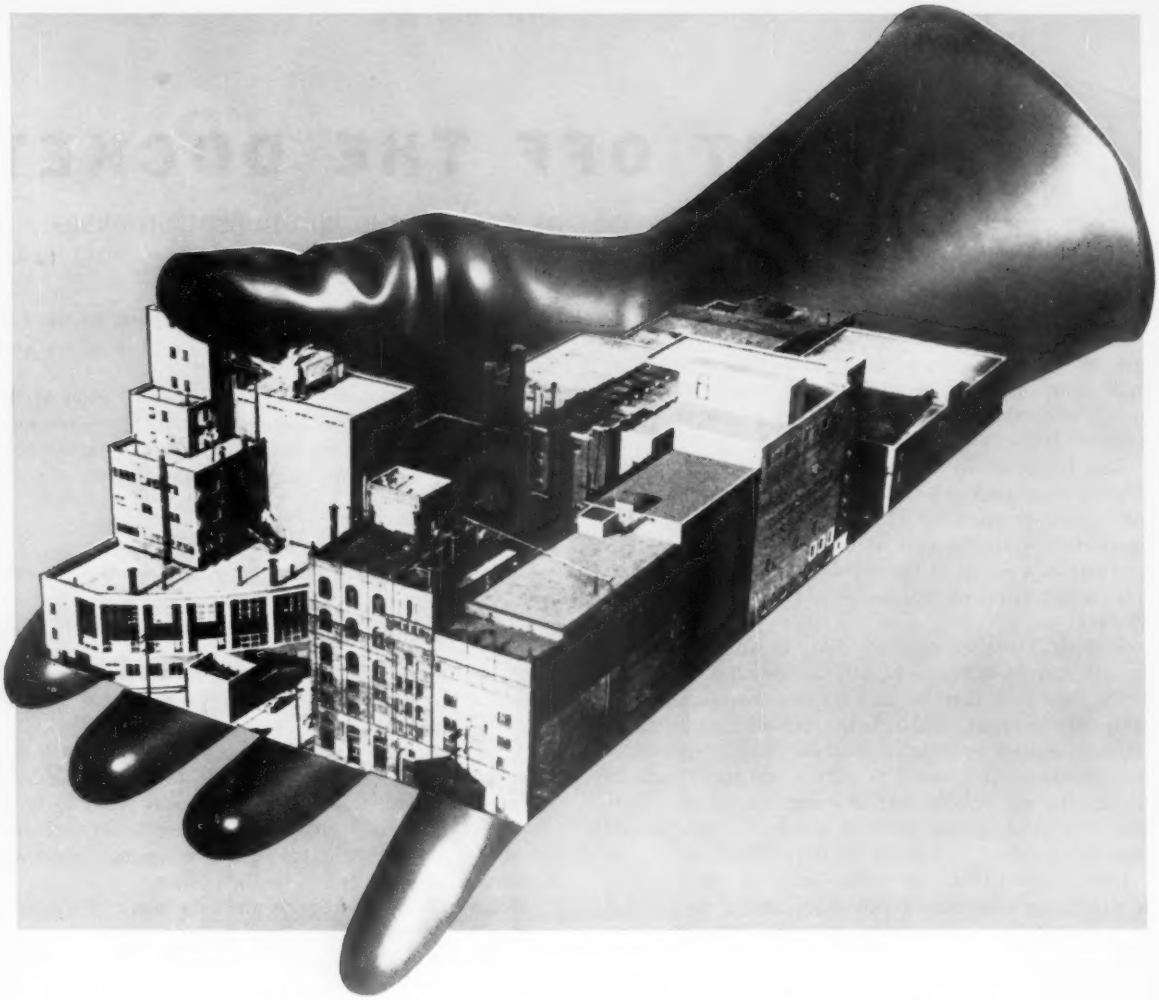
## Costly heating failure

BONANZA PRINTERS insisted that Gladys Smith's injuries resulted from an accident and were covered by the workmen's compensation law. She argued that they were not.

Gladys was employed in the bindery department of Bonanza Printers, in Las Vegas. Though it was late March, the plant heating system had been turned off because of unseasonably warm temperatures. Then suddenly, the temperature outdoors dropped. It became so cold in the bindery department that the foreman was wearing a mackinaw jacket and ear muffs. Attempts to start the heating system failed.

Gladys became chilled and suffered severe chest pains.

*continued on page 55*



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*continued from page 53*

Her physicians diagnosed the progression of her illness as pleurisy, followed by idiopathic pericarditis, and finally, systemic lupus erythemotosis, all of which means that Gladys was a pretty sick girl.

Gladys filed a civil action against her employer claiming he was negligent in failing to provide proper working conditions. She reasoned rightly that benefits she might receive from a civil action would exceed workmen's compensation benefits. Bonanza Printers attempted to prove that her claim was covered by the workmen's compensation act.

The company argued that her illness was incurred during her employment, and as a result of an unforeseen, unexpected occurrence, happening suddenly and without warning. It was, therefore, an accident as defined by the act. The company, accordingly, moved for dismissal of the civil action.

Gladys said there had been no accident, because there was no traumatic injury, caused by a *violent* unexpected event.

The court felt that to label the incident an accident would be "doing violence to the plain and commonly understood meaning of words." The workmen's compensation act, therefore, did not apply.

*Smith* v. *Garside:* Supreme Court of Nevada, 355 P. 2d 849 (September 29, 1960).

## Have courts been much too liberal?

ALTHOUGH case involved was not industrial, the Wisconsin Supreme Court recently announced what may be a growing trend in workman's compensation.

Ardina Enderby was helping clean the kitchen of her church. She volunteered. All volunteers received dinner for their help.

Her back was hurt when the stepladder she was standing on collapsed. She contended she worked at the request of the church, and received a meal in return, so she was an employee.

The court refused to buy this, saying that perhaps we have gone too far in "liberally construing the act for the benefit of workmen." It is *not* true, the court went on, that *every* injury must be paid for.

Claim disallowed.

*Enderby* v. *Industrial Commission*: Wisconsin Supreme Court, 106 N.W. 2d 315 (November 29, 1960).

## He hunted for a corpse

WAS CORPSE HUNTING within the normal range of a highway maintenance foreman's employment? The Pennsylvania Superior Court had these facts upon which to base its decision:

John Hill, highway maintenance foreman for Springfield Township, was having Sunday dinner at home when he received a telephone call. The caller informed

*continued on next page*


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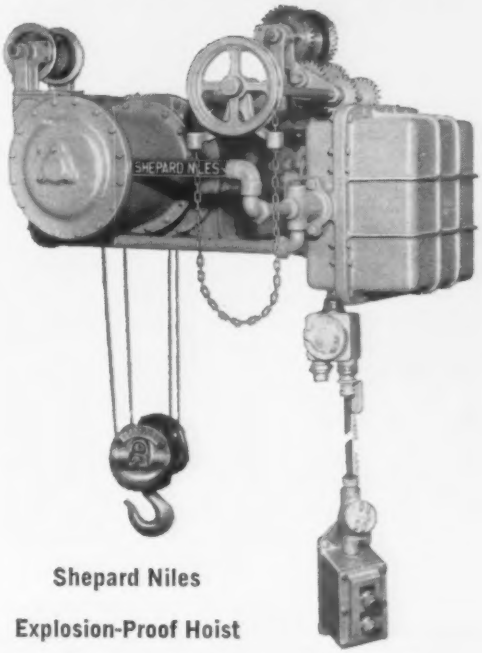


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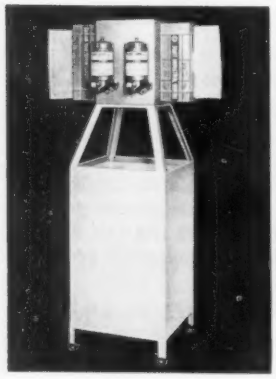

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## Right Off the Docket

*continued from page 55*

Hill that a citizen had spotted a patch of freshly dug earth, concluded that it was a grave containing the body of a murder victim. It was Hill's job to investigate. He ran upstairs, dressed, then drove to the scene.

Hill supervised the work. He did not actually dig or refill the excavation. No dead body was found, but as a result of the tension and excitement, Hill suffered a stroke and died.

His widow filed for benefits, arguing that the phone call was an unexpected development, which triggered unusual activity on Hill's part. She tried to tie the unusual and unexpected aspects of the case to Pennsylvania's definition of accident under the workmen's compensation act.

The employer argued that since Hill was on 24-hour call, the incident was neither unusual nor unexpected and pointed to Hill's medical history of high blood pressure as the pivotal factor.

The court, relying heavily on the medical history evidence, denied the widow's claim. The court stated that Hill's activity was not unusual or unexpected, as those terms are used in the workmen's compensation act.

*Hill* v. *Springfield Township Commissioners:* Pennsylvania Superior Court, 163 A. 2d 698 (September 16, 1960).

### The company lured him

ROBERT HENRY, a porter for Let Brothers, punched out for lunch. He and a group of fellow workers played football in a field on company premises. As he made a spectacular catch, Henry ran into a concrete structure and hurt himself seriously.

At the hearing, Henry pointed out that the company provided a cafeteria for employees and encouraged them to use it, that a game room was provided near the cafeteria for employee recreation, and that the field where they played football was just outside the game room. This, Henry contended, was an invitation to engage in lunch-hour recreation.

The company insisted that since Henry punched out for lunch, and since the game had no reasonable connection to his job, the claim was not compensable. The company also pointed out that this was not the usual company athletic program. It was a spontaneous game without company supervision.

The court felt the company had "lured" Robert into the game which resulted in his injury. The injury was reasonably employment-connected.

Claim allowed.

*Henry* v. *Let Brothers:* Pennsylvania Superior Court, 165 A. 2d 406 (November 16, 1960).

**Round-up coverage of Spring Safety Shows throughout the country will be featured in next month's issue of Occupational Hazards.**

## How To Plan a Safety Program

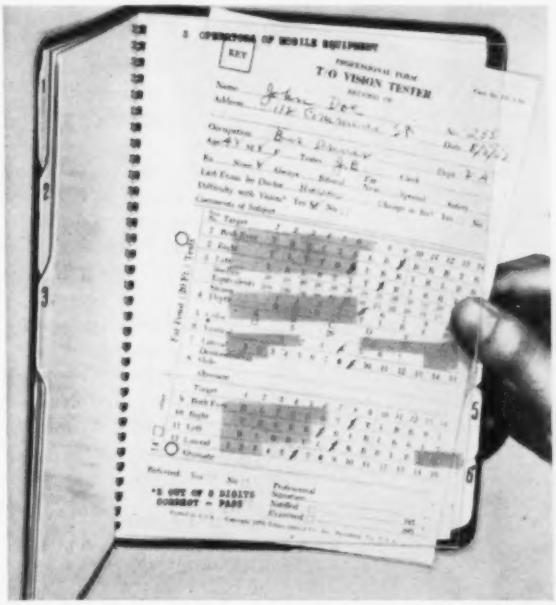
*continued from page 49*

plished in the last month and what must be done in the coming month. Impress upon committeemen how quickly their approved recommendations are put into practice.

### *Safety director handles inspections*

Some safety committees inspect plants with their safety directors. This system stimulates the committeeman's interest and safety knowledge. The drawback is that this cuts into production time.

In the final analysis, inspection is the safety director's responsibility. Each day he should inspect at least part of the plant. But inspections are meaningless unless they bring improvements. Nothing destroys the effectiveness of a safety program so quickly as failure to make changes when they're needed.




*Titmus Optical Co. photo*

**MATCH VISION TO JOB.** That's what a vision tester and these templets let you do. Put a man's vision test record under the templet for his job classification. Instantly, you see whether he meets the visual requirements. Your plant doctor can change the templet standards to satisfy your own plant needs.

The safety director, therefore, must see that housekeeping is tops, and that firefighting equipment and protective clothing and equipment are bought and maintained as they should be. This means coordinating the efforts of a number of people and direct supervision of some of them.

### *Schedule your work carefully*

Get out into the plant often. That's easy, if you fit your duties into a daily schedule.

*continued on next page*

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**WHAT HAPPENS**

When Compensation Cases Go To Court?

3,000 INDEX LISTINGS help you find the answers to workmen compensation claim problems. Actual decisions, containing court opinions. In easy-to-read, non-legal language. More than 490 pages. An invaluable book for those dealing with plant safety and workmen's compensation.

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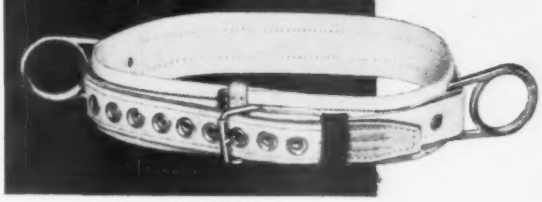

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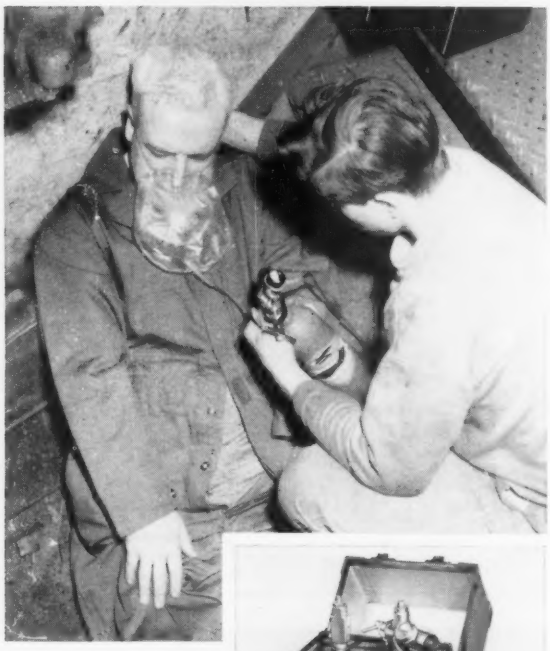
# IN ACTION... IN SECONDS



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## How To Plan a Safety Program

*continued from page 57*

You may start your day by dropping into the dispensary and looking over yesterday's list of accident and first aid cases. If an accident investigation is needed, be sure to interview not only the victim but also his foreman and any workers who saw the accident. Ask:

► What time did the accident happen?

► What was the victim doing?

► Were physical safeguards adequate? If so, were they being used? If yes, did they fail?

► Was there anything unusual about the way the victim was doing the job? Did he work according to safe job procedures?

► Are job procedures truly safe?

► Were the foreman's safety instructions clear?

► Should protective clothing or equipment have been specified for the job? If it was specified, was it being used?

Before you launch your questioning, let workers know you're collecting this information not to fix blame, not to try to relieve the company of liability, but to provide the State or insurance company the facts it needs to process the victim's claim and give him his rightful benefits.

Analyze the medical report to determine the nature and extent of injury. Get a complete statement from the victim. Ask the doctor about probable recovery time, the chances of lasting physical limitations that may require a job transfer. Never allow a man to return to work without first getting the doctor's approval and a report on the worker's physical condition.

### *Need for investigation should be rare*

An investigation, however, shouldn't be part of your daily routine. The usual dispensary stop should yield little more than a record of first aid cases in the last 24 hours. But the records often tip you off to trouble spots developing in the plant or signal the need for a drive on certain injuries.

After leaving the dispensary, you may stop at your office, look at the mail, and handle correspondence.

By now, it's midmorning. Spend some time in the plant making inspections, talking to foremen and workers. Nothing is more important to the safety education of workers than showing them you are approachable, that you're there to correct unsafe conditions, advise them on safe ways to do their jobs. If you prove you're around not to hound, but to help them, you'll have a receptive audience. One caution: *Never get between the worker and his foreman.*

You may fill the rest of the day with record keeping, report writing, conferences, and planning sessions.

### *No single plan can embrace all*

No one can spell out a schedule that will be effective for safety directors everywhere. This example is merely a rough guide. The real work schedule is up to you. This guide points primarily to the need for spending enough time in the plant to allow for thorough inspection and careful follow-up. • •

# Sudden Injury

United Press International photo

**A minister bends over a woman who was crushed to death as she walked past a grain elevator at the moment the building exploded. At least 5 died, and 53 were hospitalized. Manual lighting of a hot air chamber pilot touched off the explosion. An automatic lighting device was available, but wasn't used.**

**Reprints of "Sudden Injury" poster pages (without these price lines) may be ordered: 1-19 copies, 15 cents each; 20-49 copies, 12 cents each; 50-99 copies, 10 cents each; 100-499 copies, 7 cents each; 500 or more 5 cents each. Please send payment with order.**

## How Tight Is Security?

*continued from page 30*

afoot will stop around occasionally as they do their other chores. This is minimum security.

### *No pensioners for guards*

Firms ranging from small to large often rely on watchmen. These men usually are not plant guards. Frequently, they're pensioners or physically disabled. That is not as it should be.

A good watchman, or guard, or whatever you like to call the member of your security force, is reasonably young, physically strong, mentally awake, and morally straight — like a Boy Scout with muscles and experience. He's able, because of training, physique, and emotional stability, to deal with an emergency. He doesn't tire easily, and he isn't sick one day out of every seven. He has a better than average IQ, although he's certainly no genius.

Your security program, if you have one that goes beyond the alarm-and-private-patrolman stage, is no better than this watchman. You can install all manner of electronic devices to sound warnings; you can have automatic sprinklers everywhere—but you'll still have to rely on someone who's smart enough and quick enough and strong enough to know what to do and then to do it, when the alarms and the sprinklers go off.

Some firms hire ex-policemen or former soldiers for their security force. These men already are well trained in many aspects of security, already know how to take—and give —orders. If they're physically fit and not alcoholic, they're ready for the specialized training they need to be good plant guards.

### *Good leaders needed*

This training takes good leadership. We know a onetime major who now commands a plant security force. A retired general heads up the American Society for Industrial Security, composed of security chiefs from plants all over the United States. A former FBI man directs a plant security service that farms out guards to factories.

**NATTY APPEARANCE** is important. Often, the first representative of your company an outsider meets is the guard at the gate. These men, at an Ohio plant, are contract guards, required to meet drill ground standards of appearance and trained to make visitors feel they're really welcome.

Don't rely on an inexperienced executive to take care of your guard training. Call on someone who knows what he's doing. If you have no one like this among your company people, perhaps you can argue your local police and fire departments into helping teach your guards.

Many books and pamphlets have

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been published on the subject, the most notable of which probably is *Industrial Plant Protection* ($12.50), published by Charles C. Thomas and written by the security coordinator of the Hallicrafters Co. The National Fire Protection Association has standards to govern watchman service. Detex Watchclock Corp. puts out the free brief, but very good, "Property Protection Manual." The Factory Insurance Association has material on watchmen's duties and alarm services. From these sources, from your State fire marshal, from your insurance company, from magazines, you can rapidly assemble a thorough file on what your guards should be and do and how they should be managed.

Here's why it takes a good man to train good guards. He has to know, so that he can teach others to know—

► How to identify doubtful visitors during off hours. (Are the badges they carry really theirs?)

► Which doors and gates must be kept locked, and which must be watched constantly.

► Where unnecessary lights are burning, and where lights are off that should be on.

► What equipment should be shut off if it is found on.

► If company material or equipment is suspiciously concealed.

► Who is authorized to be in company offices after hours.

► If someone has been smoking in nonsmoking areas.

► What unsafe conditions, including fire hazards, exist.

► What unusual odors may mean.

► If sprinkler valves are closed, and if fire extinguishers are not filled and mounted as they should be.

► What plant areas are especially subject to theft or fire.

► How automatic processing equipment should sound and look and smell when it is operating properly.

► How to deal with people so they will have a good feeling about the company.

### *What's your purpose?*

Behind training and the choice of leadership and guards lies planning, the sort of the planning we sug-

*continued on next page*

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## How Tight Is Security?

*continued from page 61*

gested at the start. What do you want your security program to do? How much can you afford to put into it?

You can't train guards or instruct their leaders until you have the answers to these questions. Do you *need* visitors' badges? If you do, use them—and don't duplicate the performance of the paper mill that asked visitors to wear them for no apparent reason. Do you *need* plant guards during shift work as well as during off hours? If you don't, why bother? If you do, how many do you need and what are they to do?

These are sample questions. You'll have many more. What you decide must be founded on that definition of security: *Protecting your property, your profits, and your people.* Variations in the kind of plant you have, the number of people you have, make it as impossible to lay down a single rule for training guards as it is to lay down a single rule for machine guarding or fire protection.

You can supplement your guards with automatic equipment. Some huge firms furnish guards with patrol cars, walkie-talkies, revolver ranges for firing practice. Some set up elaborate electronic or ultrasonic alarm systems. Some rely on closed circuit television cameras to monitor gates and windows and doors and especially hazardous areas. Some combine alarms with sprinklers.

Insurance groups normally recognize only sound guard service as meriting credit on fire and burglary premiums. The New York City Division of the New York Fire Insurance Rating Organization lays out these rules for a guard service that earns credit:

► Guards must be on duty whenever usual business is suspended.

► Rounds must be made at least every hour, and must start as soon as business ends and continues until an hour before it starts.

► Guards must use watchclocks of some kind to record their tours.

► Watchclock stations must be scattered well enough that guards have to see the entire premises during their tours. No part of the property should go unobserved for more than an hour when business is not carried on. • •

**WATCHLOCK STATIONS** normally should not be in sight of one another. A well-planned route for a guard takes him 40 minutes, allows 20 for relaxing and making out reports.

**Photo credits:** Phillips Petroleum Corp., Acme Industrial Police, Gates Rubber Co., Detex Watchlock Corp.

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# NEW PRODUCTS

**Pictures and information here come from manufacturers, and represent their own assessment of their products and services. To obtain more details about any item, circle the correct number on the reader service card and mail the card to us. No postage needed.**

## Electric Truckster

Here's a 5-passenger electric vehicle by Cushman Motors. Just the thing for in-plant transportation of injured workers and rescue equipment. The 734 Truckster will operate

in aisles as narrow as 50 inches, go 50 miles without recharging, has top speed of 15 m.p.h. Comes equipped with headlight, tail light, stoplight, and horn.

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## Solvent detergent

Safety Gel by Isochem Resins Co. has penetrating properties that eliminate residual resin from the skin. Just rub it on hands, place hands under water, and see how Safety Gel converts resins into water solubles that wash away easily, thereby eliminating a major source of dermatitis.

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## Multiple safety lockouts

Dayton Rogers Manufacturing Co. offers multiple lockouts to eliminate

severe injuries, costly damages to equipment, and work spoilage. Use the device to lock out electric sources leading to fuse boxes, gas valves, switches, and other equipment. A steel model is for general use; another of bakelite, is for high tension switching protection.

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## Rib safety sole

The Bantam-Rib version of the Ripple Sole is being included in the lines of safety shoe manufacturers, according to the Ripple Sole Corp. It

is 25 per cent lighter than the original Ripple Sole, versatile, comfortable, firm-gripping, and long-wearing. It will make a hit with safety people who spend a great deal of time on their feet.

*Circle No. 203 on reader service card*

## Emergency splints

Hartman Safety Products, Inc., has a splint that comes in three sizes to accommodate arms, legs, hips, or pelvis. It doesn't need triangular bandages, lets one person do the splinting. You can X-ray fractures without taking off the splint. Each splint is disposable, is made of corrugated board with muslin ties, is packaged in a plastic container. Buy it in sets of three or individually.

*Circle No. 204 on reader service card*

## First aid agent

E. D. Bullard Co. announces a new plastic dispensary package for NEUTRALIZE, the phosphate buffer that inactivates chemical irritants. It provides on-the-spot treatment of chemical burns. NEUTRALIZE is replacing water because it works quicker, is a bacterial killer, and can always

be available. The 4-ounce squeeze bottle makes application easy.

**Circle No. 205 on reader service card**

### Fume disposal

Here's complete industrial fume disposal. Catalytic Combustion Corp. makes a fume combustion unit that

converts noxious, hazardous, combustible fumes and vapors into harmless air and water vapor. Shown in an assembled compact unit, ready for installation, push-button start-up, and automatic operation.

**Circle No. 206 on reader service card**

### Plastic-impregnated gloves

Cromac plastic-impregnated work gloves by Jomac, Inc., provide the finger dexterity of canvas gloves, yet last longer. Particularly suited for

handling metals, plastics, glass, brick, stone, and factory or mine products. Impregnation with plastic makes for long wear, snag resistance, and firm grip. May be washed repeatedly.

**Circle No. 207 on reader service card**

### Rocket propellant gas mask

For protection against liquid rocket propellant hazards, Willson Products

Division (Ray-O-Vac Co.) offers this gas mask with full face-piece; basic rocket propellant canister with standard threaded nozzle; and special military type canister with added filter protection against radioactive and bacteriological dusts. Nonfogging lenses; cheap enough to allow for wide use.

**Circle No. 208 on reader service card**

### No-Fog lens tissues

Carhoff Co. puts out a pocket pack of No-Fog lens cleaning tissues. This

*continued on next page*

**Circle No. 45 on reader service card**

## New Products

*continued from page 65*

handy pack is ideal for industrial workers who are not working near a goggle cleaning station. They clean and fog-proof glasses, goggles, face-shields, camera and projector lenses. Wet or dry, they can be re-used many times.

***Circle No. 209 on reader service card***

### Lubricity stabilizer

Fine Organics, Inc., has a lubricity stabilizer and odorless deodorant,

W.S.G., designed to extend the effective life of water soluble cutting oils and to eliminate foul odors and spoilage. For Blanchard grinders, centerless grinders, turret lathes, and all standard cutting and grinding operations. Noncorrosive and nontoxic.

***Circle No. 210 on reader service card***

### Automatic fire detector

Here's how to detect fires on industrial properties without a sure elec-

tric power supply or to supplement other fire protection equipment. Falcon Alarm Co.'s gas-operated, single-station alarm units carry a 20-year guarantee, are low in cost and easy to install. Horn may be placed 250 feet from the detector.

***Circle No. 211 on reader service card***

### Tank inspection ladder

This extension ladder by Aluminum Ladder Co. is fitted with an aluminum platform. Ideal for use with tank

trucks. Made of high tensile strength aluminum alloy, the ladder is lightweight and durable. This addition to the Alco-Lite line is nonsparking, making it safe for use near flammable


# HOW YOU GET MORE FOR YOUR MONEY WITH "CRYSTALS"

*the only clear plastic, **expendable salt dispensers** you can buy*

1000 TABLET "CRYSTAL-M"

500 TABLET "CRYSTAL"

- So low cost you discard the empties—no refilling, no loose tablets.
- You always see how many tablets remain in transparent "Crystals"— no empty dispensers unreported, no prying off of lids to check supplies.
- All tablets sealed in at our factory for cleanliness.
- Mechanism easy to work with one hand.
- All tablets meet applicable federal specifications.

| Stock No. | Description | No. of Tablets | Price |
|---|---|---|---|
| FCE6-10ES | One case—6 dispensers | 500 enteric coated | $ 7.92* |
| FCE6-10RS | One case—6 dispensers | 500 impregnated | 7.92* |
| FCEM6-10ES | One case—6 dispensers | 1000 enteric coated | 11.04* |
| FCEM6-10RS | One case—6 dispensers | 1000 impregnated | 11.04* |

* Less 10% for 12 cases or more

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CLEVELAND 10, OHIO

***Circle No. 46 on reader service card***

materials. Fitted with automatic locks, rope, and pulley.

**Circle No. 212 on reader service card**

### Neoprene gloves

Wil-Grip Firmhold Finish gloves offer extra gripping and holding friction on wet or slippery surfaces, as well as superior resistance to most

oils, fats, greases, petroleum solvents, and caustics. They are allergen-free. Available from Wilson Rubber Co. in black or white neoprene.

**Circle No. 213 on reader service card**

### Tool holder

"Strike hard with safety and confidence," says Rose Manufacturing Co. about its new plastic-handled Safe-Hi Tool Holder. A nonslip, nonconductive handle and a broad, flexible rubber base and rubberized holding band absorb vibration and stop tool creeping. More blows—less effort. Designed for use with steel stamps, chisels, punches, even test tubes. Holds tools up to 1¼ inch in

*continued on next page*

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### INDUSTRIAL DISTRIBUTOR

**Safety Equipment**

**K-C Region**

Death of owner makes profitable, *established* industrial supply business available to aggressive businessman having $10,000 to $20,000 capital, organization talents, and industrial sales experience. One of top 500 corporations offers exclusive franchise on leading line of industrial safety equipment selling to diversified markets. Opportunity for expansion excellent. 90 years of successful distribution of these nationally advertised products:

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- Safety gas and dust masks
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Background of industrial safety preferred, but factory training available. Excellent opportunity for growth through new products and other lines. Steady profits and secure future partnership. Reply in confidence. BOX 312, Occupational Hazards, 812 Huron Road, Cleveland 15, Ohio.


No. 7 in a series of washroom survey comments from "SBS soap counselors"

*They asked us how to combat hard-to-remove soils!*

**George Y. Schombert**

is the soap counselor who has helped many plants find economical solutions to skin hygiene problems. Here's his case history report of conditions at an Eastern steel mill:

"Workers in this steel mill come in contact with many hard-to-remove greases, tars, chemicals and paints that are potential irritants. In the Coke By-Products Plant, for instance, a too high percentage of workmen showed signs of rough, cracked hands due to the use of harsh solvents as a hand cleaner. Plant efficiency suffered; management asked us for a solution.

"We obliged by suggesting *SBS-30 Waterless Skin Cleanser.* After telling them how completely SBS-30 has cleared up skin hygiene problems in other plants, we showed them how easily they could set up waterless washstations . . . anywhere in the mill where they have hard-to-remove soil problems. We pointed out other SBS-30 advantages: elimination of washing with harmful solvents, fewer trips to washrooms . . . happier employees working more efficiently!"

***Money-saving suggestions*** like this *begin* with OPERATION PINPOINT–a thought-provoking presentation filled with facts about skin hygiene and washroom maintenance. The SBS soap counselor serving your area can pinpoint the right soap to do every skin cleansing job best and at lowest cost in your plant. Let him show you OPERATION PINPOINT . . . just call your nearest SBS office, collect.

*the washword of industry*

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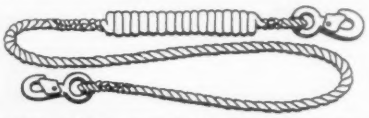
SAGINAW, MICH. • Los Angeles, Calif. • Newark, N. J.
CANADA: Chemical By-Products, Ltd., Toronto, Ontario

**Circle No. 47 on reader service card**

# DON'T find out by accident

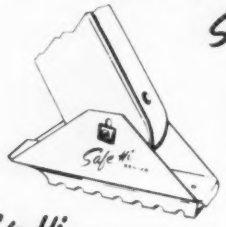
***In safety equipment, second best just won't do!***

Get the *facts* on the safety equipment you need. For 29 years, the Rose Manufacturing Company has been designing, testing, and manufacturing the finest safety equipment in its field.



**Safe-Hi UNOLYN COIL SHOCK ABSORBER AND LANYARD**

The Safe-Hi Unolyn Shock Absorber and Lanyard are safe two ways! A 50-inch length of Nylon Lanyard is coiled around a 10-inch length of Unolyn. After the Unolyn has stopped the fall and absorbed the shock, the Nylon lanyard retains full strength and safety. Unolyn s-t-r-e-t-c-h-e-s to 5 times its own length—one pound of Unolyn absorbs up to 25,000 foot-pounds of kinetic energy—to guard against broken ropes, anchors, belts and broken men due to impact in stopping falls!

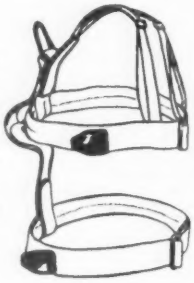


**Safe-Hi LADDER SHOES**

Safe-Hi Ladder Shoes hold on all surfaces because they combine fibre and neoprene in the tread. This combination holds any ladder safely on wet, dry or slippery surface. The self-sharpening steel spike flips down for ice or snow.

Listed by Underwriters Laboratories for all surfaces. Also available in spark-resistant metals.

**Safe-Hi CHEST-WAIST BELT**



The Safe-Hi "Chest-Waist" belt is the *safest* belt made for workmen in high places, because it *divides* the shock load to two separate areas of the body—the chest and the waist. It also assures proper adjustment; the shoulder-supported chest belt can be worn loose for comfort, but the un-supported waist belt must be *worn* snug, thus preventing the fatal "slip-out" accident in a fall.

Other Safe-Hi Safety Belts include Car Dropper's Belt, Grab Belt, Heavy-Duty Construction Worker's Belt and Window Cleaner Belt.

**Safe-Hi AUTO SEAT BELT**

The "all nylon" Safe-Hi Auto Seat Belt has been safety-engineered to reduce crippling injuries and deaths resulting from highway accidents. The entire belt assembly, including the floor hardware, test far beyond C.A.A. rated strength for airplane seat belts! The 2-inch-wide webbing is 100% nylon, shock-absorbing, very long wearing and easily kept clean. It is light and comfortable to wear, and can be instantly adjusted or released. The Safe-Hi Auto Seat Belt will fit any person, any seat and any car or truck.

**Safe-Hi Seat Belts meet or exceed U.S. Gov't specifications.**

**OTHER SAFE-HI PRODUCTS**

Other Safe-Hi Products include the Safe-Hi Ladder Climber, Chisel Grip, Rope Grab Shock Absorber, Ladder Lash Pole Grip, Wall Grip and Adjustable Bo'suns Swing.

***You're sure you've got the best with***

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R9-1

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***Circle No. 48 on reader service card***


## New Products

*continued from page 67*

diameter and down to 2 inches long. A 2-man model takes tools 2¾ inches in diameter.

***Circle No. 214 on reader service card***

### Chemical worker's goggle

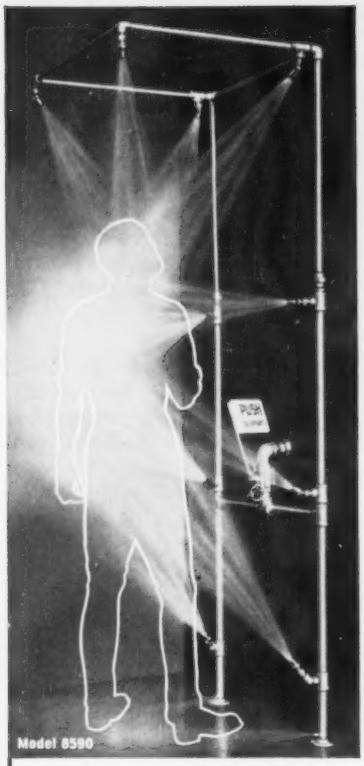
Bausch & Lomb comes forth with a molded rubber goggle designed to be worn by welders and chippers as well as those working with chemicals. Acid-resistant, it has soft-rolled edges,

fits comfortably and securely. Allows wide-angle vision, fits over eyeglasses. With aluminum noncorrosive vents (for welders, chippers) or without (for chemical workers). It is easy to handle, wear, and clean.

***Circle No. 215 on reader service card***

### Blow gun

Saf-T-Air saves minutes otherwise wasted in moving tools and cleaning away chips, dust, and waste cuttings. Pistol grip for easy handling. Operates at from 30 to 100 p.s.i. Openings for airshield are designed to pass rubber or dirt particles from the airline without plugging. Produced by E. V.




# contaminants off FAST!

HAWS SAFETY SHOWERS send torrents of rushing water from all angles – washing away dangerous irritants in a hurry!

Slap open the conspicuous "Push to Operate" valve. Hard-running streams from 10 *adjustable* nozzles drench victims in seconds.

You can depend on HAWS for the instant, *positive* first aid so vital until medical help arrives.

This "Safety on tap" can mean the difference between temporary irritation and permanent injury. Get the facts! Write for HAWS new safety catalog. Do it today!

Valve shown three-quarters open.

**HAWS DRENCH SHOWERS**

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**Export Dept.** 19 Columbus Avenue
San Francisco 11, California, U.S.A.

***Circle No. 49 on reader service card***

Nielsen, this device is a fine safety companion for goggles.

***Circle No. 216 on reader service card***

### Emergency oxygen

Breath-O-Life Oxygen, Inc., markets this portable, controlled flow oxygen administration set. A replaceable oxygen sphere with over an hour's supply; no refilling delays, no valves, gauges, or rebreather bag. To start flow, just press the mask against face. Device weighs only 2 pounds. Use it wherever auxiliary oxygen is needed.

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for Dependable Service . . .

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makes the difference

**PLANT SECURITY PROGRAMS NATION WIDE SERVICE**

Successful and economical plant protection must include highly qualified and trained personnel . . . Acme officers are carefully selected, meet highest standards and are specifically trained in many fields, including:

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**INCLUDES:**

- **Training Outline "How to Prevent Accidents"**
- **Four Step "Hazard-Spot" Card**
- **Accident Prevention Displays (17" x 22" Multicolor)**
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**Elliott Service Company, Inc.**
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Please provide me with the Elliott "Safety Promotion Kit."

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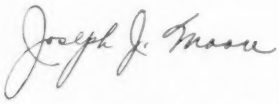
## Safety vs. Personnel

*continued from page 43*



**Q.** What's your idea, Mr. Moore, of the normal company organization that puts safety under personnel?

**M.** One of the toughest battles for the safety engineer is to overcome the stigma of being placed under the supervision of the personnel or industrial relations director. Neither the personnel nor the industrial relations executive sees accident prevention in the same light as the safety engineer. The safety engineer has to call the shots as he sees them. Sometimes, if not all times, it's impossible for him to sell his ideas to personnel or industrial relations — and if he wants to keep his job, he drifts along to satisfy his immediate superiors.

**Q.** What's the result?

**M.** Because of the pressure they're under from personnel, some safety engineers have become wonderful whitewash artists. Most organizations want a pat on the back or an award they can hang on the wall to show how wonderful their safety record is. Many would rather have the award than the truth.

**Q.** The Ontario Industrial Accident Prevention Associations plugs hard for putting the safety engineer under a top production executive. What's your idea for getting away from the kind of pressure you mentioned?

**M.** There's a marked difference in a safety department that reports directly to the top of top management. It really exerts itself to benefit the company. Every member of the department feels he's wanted and needed. Instead of reporting to personnel or industrial relations, the safety department should report to the president, board chairman, executive vice president, or some similar officer. In an organization like that, the safety engineer will go to a lot of personal expense and put in a lot of his own time going to safety conferences and lectures, talking with experts, and reading safety literature. He's less likely to do that when a personnel director interferes constantly with his work, and when he's just a low man on the company totem pole.

**Q.** Can a safety man do anything to get out from under the personnel department?

**M.** There is serious need for safety men to remind management constantly that they can be of real help to their companies only if they aren't under the handicap of being in the personnel or industrial relations department. Someone told management in years past to put safety men in personnel, and I

See K-LENS-M Booth 78 at The Greater New York Safety Convention & Exposition.

Circle No. 52 on reader service card

am sure it wasn't a safety man who did it. If safety men are interested in accident and injury prevention, they'll tell management where they best fit in company organization—that they should report right to the top.

**Q.** Do you know of firms that follow your ideas?

**M.** Quite a few. But in many cases the personnel director also takes the title of safety director. This puts the safety department under personnel, even though it looks independent. It's the same pot, but different gravy. The safety people do all the legwork, furnish all the know-how, and see the credit go to personnel.

**"ONLY ONE BLOCK** under the ram," this safety engineer tells the operator. "There should be two." Most industrial injuries result from production and maintenance work. Most personnel men don't know factory hazards. So Messrs. Anderson and Moore call for getting safety away from the personnel department.

**Q.** Aren't safety men themselves often to blame for being what you call low men on the company totem pole?

**M.** A few safety men are weak sisters. They allow themselves to be at or near the bottom. They don't realize their attitude cheapens their position. Heinrich asked a few years ago, "Can safety men stand on their own feet?" I believe they can, provided they aren't wet-nursed

*continued on next page*

*Circle No. 53 on reader service card*

**FITE RITE EMERGENCY BLANKETS**

Save More Lives, Material and Equipment
Smother Gases and Fire
Quick Aid for the Injured

Each Blanket comes in Self Storing Container. Hangs on Wall or Post like a Fire Extinguisher.

WOOLEN FIRE AND FIRST AID BLANKETS

This is an All Wool Blanket 4 lbs. Wool being very flame resistant, blanket does not require treatment as do part wool blankets. Can be cleaned.

- As a wrap for shock and exposure cases.
- A must for schools.
- Good for fire fighting.
- Excellent as a pillow rest for the injured.

ASBESTOS FIRE BLANKETS

Blankets available in commercial grade or Underwriters' grade Asbestos cloth.

- Smother clothing fire by wrapping victim in blanket.
- As a shield to flee through flaming area.
- Beat out or smother small fires and flash fires.
- Save damage to expensive machinery and material caused by destructive fire extinguisher liquids.
- Cover machinery and material to protect it from flying embers and sparks or nearby welding.

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**216 N. CLINTON ST. • CHICAGO 6, ILL.**

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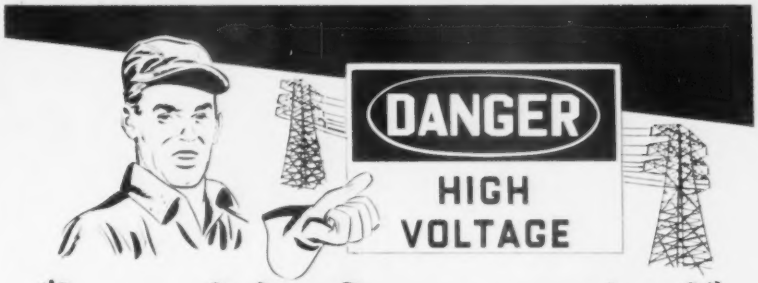


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IPCO

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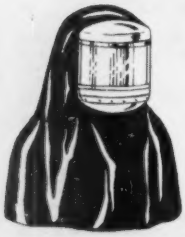

NITROMETER MASKS for Plant or Laboratory

SHIELDS AND HELMETS

TEL-A-SHIELD Protective Shields for Chipping, Grinding, Welding, similar operations

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BROAD VISION RESPIRATOR HOODS for Dust and Spray Conditions

AND EYE PROTECTION

SAND BLAST HELMETS Lightweight Multi-purpose Canvas Helmets, Laminated Safety Glass, Protective Wire Screen

You name the job condition—IPCO can supply the safety equipment designed to protect against specific job hazards. Head-to-toe protection begins with IPCO safety equipment. Write for complete information.

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*Circle No. 55 on reader service card*

**Safety vs. Personnel**

*continued from page 71*

by people who delight in telling them how to do their jobs.

**Q.** Why do you think safety should be taken out of the personnel or industrial relations department?

**M.** Most safety engineers combine education and engineering to put across their programs. The combination has nothing in common with personnel or industrial relations work. It seems to me there should be enough for personnel to do without making the personnel director keep up with the safety program. Those who aren't acquainted with safety engineering and try to ride herd on it—well, they're in over their heads.

**Q.** An industrial relations director told us the safety department was under him just for administrative reasons. What's your answer to that?

**M.** If the safety director knows his business, he can easily be placed in the company organization so that he reports to top management. He should at least be on the same level, or above, the personnel or industrial relations director. It's as reasonable to put personnel or industrial relations under safety as it is to handle organization the other way round, if you set up departments "just for administrative reasons." • •

**Turnpike navy . . .**

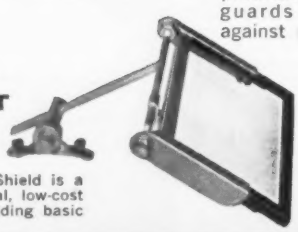
A fireboat stands close to the west end of the $70 million Tappan Zee Bridge of the New York Thruway. The bridge crosses the Hudson between Nyack and Tarrytown. The only fire the boat ever fought was an oil fire ashore, but the Thruway Authority keeps it stationed there to protect the bridge "just in case."

JUNKIN ELECTRO-LOCK SHIELD

MAXIMUM visibility... MAXIMUM protection!

The Junkin Electro-Lock Shield permits the operator to see clearly the work he is performing and at the same time protects him from severe injury or eye damage. Interlocking power and light circuits will not permit the machine to operate unless the shatter-proof Junkin Electro-Lock Shield is in complete protective position. This feature guards unthinking operators against mishap.

Junkin SAF-SIGHT SHIELD



The Saf-Sight Shield is a simple, practical, low-cost means of providing basic protection.

Canadian Distributor: Levitt Safety Ltd., Toronto

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JUNKIN ENGINEERED SAFETY

JUNKIN SAFETY APPLIANCES
3121 Millers Lane, Louisville 16, Ky.

*Circle No. 56 on reader service card*

## When Microwaves Run Wild

*continued from page 31*

Six months after the incident, Dr. Joseph W. Howland of the university School of Medicine & Dentistry reported the men still showed the results of exposure.

They were very sensitive to heat and cold. On a warm day, one collapsed from heat prostration. All continued to have fits of excessive drowsiness. It still was not determined, by the end of 1960, whether any of the men (five of whom range in age from 23 to 31) were made sterile.

All six were reassigned to jobs without radiation hazards. • •

## Preemployment Physicals

*continued from page 39*

The nurse informed Dr. Solomayer and asked him to have a talk with the man. The man confided to the doctor that his new job had him down. It was repetitive, unsatisfactory. He couldn't wait to leave the shop in the evening. Several days later, the man dropped something on his foot, broke his toe.

Dr. Solomayer was able, through talks with management and labor officials, to have the man restored to his old job.

Dr. Solomayer told an OCCUPATIONAL HAZARDS editor: "I believe the majority of industrial accidents are caused by job dissatisfaction and poor morale, as probably was true in this case. That's why a good preemployment physical examination and a complete medical history are so important in helping to place the right man on the right job."

Too many personnel men are inclined to establish physical standards much too high.

"They're looking for athletes," Solomayer said. "It's a holdover from the old days when there was much manual lifting in industry."

This attitude defeats the very purpose of effective personnel procedure: using the available labor supply wisely. Rather than scrutinizing medical reports with the

*continued on page 75*


# SEARJEANT

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Searjeant Guards are Protecting Operators in 41 States, Canada and Foreign Countries.

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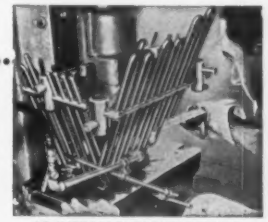

ADJUSTABLE BASKET GUARD

**SEARJEANT** METAL PRODUCTS, INC.

**1336 Pittsford Rd., Mendon, N. Y.**
In Canada: SAFETY SUPPLY CO., Toronto, Ont.

***Circle No. 57 on reader service card***



**EYE WASHING FOUNTAIN**

**SAVE EYES!**

Leading industrial doctors advise immediate washing with plenty of running water as the best first aid treatment for any chemical in the eyes. Records prove that washing with water for ten minutes or more, close to the accident, is necessary to reduce or eliminate eye damage.

Forehead operation leaves hands free to open eyelids so water can be directed wherever chemicals might be lodged. Sanitary white baked enamel bowl is resistant to most fumes.

Over 500 industrial plant installations have been made to date.

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**VALVE**
Chain Operated
Quick Action
Self-Closing

**NEW EMERGENCY SHOWER**

The B & A Shower is the quickest and most satisfactory way to saturate a worker with gallons of water the instant an accident occurs, to prevent a disfiguring burn—even a fatality.

Special shower head, no holes to clog—can be used where unfiltered water prevails.

*Write For Details.*

**NEW LOW COST B & A SAF-T-BAGS**

are widely used for the safe handling of glass bottles containing harmful chemicals; also the storage and recovery of expensive serums, biologicals, and other costly products.

Painful cuts, disfiguring burns, loss of eyesight, or even a fatality, do result from corrosive liquid splash and flying glass when unprotected bottles shatter.

5 PINT
1 GALLON
5 GALLON

*Write For Details.*

**BENSON & ASSOCIATES, INC.**

Dept. OH, P. O. Box 7542, Chicago 80, Ill.

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Investigate the life-saving

# Dillon DYNA-SWITCH

A Silent Watchman It Never Sleeps!

- Stops hoist & crane overloading
- Automatically cuts off power to motor when load exceeds pre-set weight.
- Can also ring bells, operate warning lamps, etc.
- Assures protection for personnel & equipment
- Easy to install. Hook models optional.
- Lightweight, compact, dead accurate.
- Working range 500 to 20,000 lbs.
- Will flex millions of cycles without losing resiliency.

**YOURS FREE!** Illustrated brochure and low price list. Write **today!**

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14630 Keswick Street
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**DIRTY HANDS MAY MEAN**

# DANGER!

## Keep them safe with . . .

**Phlo® Waterless Cleaner.** Milky white and creamy smooth. Anti-dermatitis. Contains silicones and lanolin for double protection.

**Phlo Neutral Protector.** An effective, non-toxic soil and bacteria barrier. Contains lanolin and silicones. Available in water soluble and waterproof types.

**Practi-Kreme Skin Protector and Cleaner.** Applied before work to make skin impervious to paints, lacquers and other non-water based irritants. Moistened and rubbed to a lather after work, it leaves skin pore-deep clean.

Write for Free Test Samples

The Chemical Corporation

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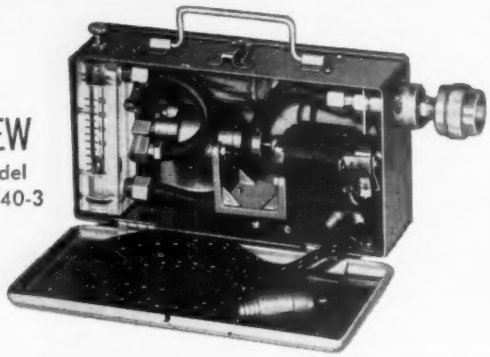

NEW
Model
AD-440-3

# GAST PORTABLE, POSITIVE DISPLACEMENT AIR SAMPLER

Industrial Hygienists! Here's the answer to accurate, portable, versatile air sampling. Collects atmospheric samples of dusts, fumes, etc. Use with filter papers and membrane filters — or connect to impingers, impactors, bubblers or other devices.

New, improved Gast Sampler offers basic flow of 19 liters/min. at 0" Hg vacuum—or as low as 1.8 liters/min. if desired. Choice of 115 V. AC, or 3 voltages DC (battery) Models. Wt. 6¾ lbs. Case 9⅛ x 2⅞ x 5¼ in. Quiet, reliable, highest quality.

**WRITE TODAY FOR BULLETIN 659**

Gast Manufacturing Corp., P.O. Box 117-CC,
Benton Harbor, Mich.

Only $129.00 complete with AC or DC motor

GAST ROTARY
"Air may be your answer!"

- AIR MOTORS TO 7 H.P.
- COMPRESSORS TO 30 P.S.I.
- VACUUM PUMPS TO 28 IN.

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# S-M-O-O-T-H

. . . . . that's what Fire Equipment MUST be at a fire.

WIRTS Hose Carts have been operating SMOOTHLY for over seventy-five years!

Send for our brochure.

Wirts

WIRT & KNOX MFG. CO.

23rd & York Sts. Philadelphia 32, Pa.

Circle No. 62 on reader service card

## Preemployment Physicals

*continued from page 73*

idea that only the physically perfect qualify for hire, think in terms of each man's overall qualifications.

If, for example, a man has diabetes, he shouldn't climb ladders or operate a crane, but there's plenty he can do. In most States second injury funds are set aside for those who aggravate a preexisting condition in an industrial accident. The company assumes no added liability in hiring a man with physical limitations, provided he is properly placed.

### *Periodic examinations*

While preemployment physicals are vitally important, their value diminishes with a passage of time, thus the need for periodic physical examinations. They forestall plenty of trouble. The interval between them should be determined by the kind of job the man does. If his job is strenuous or involves a health hazard, however well controlled, the interval should be brief.

One company in the Midwest with 1,500 employees had an accident record that looked like a horror movie. In a short time, 12 workers lost hands or fingers.

Plant officials got religion. They called in Dr. Solomayer and asked him to give physical examinations to all their workers. So far, he's examined 250 men and spotted over 800 illnesses and defects. Granted, these are extraordinary findings. Those examined were primarily unskilled workers who had previously neglected medical care.

### *Ounce of prevention*

But the first time around on a periodic physical examination program invariably produces startling disclosures.

At a New England plant recently, a doctor examined 350 employees. He found something wrong with every one of them! Ailments included everything from high blood pressure, heart trouble, and early cancer to obesity and bad teeth.

By spotting these in time, the examining physician was able to prevent numerous pending disabilities and to correct many ailments which were still controllable. The physician doubtless saved the company many accidents and helped hold down absenteeism and labor turnover.

The first in a series of periodic physical examinations usually turns up ailments among 60 percent of the people examined.

Another dividend of the periodic physical examination: The second and third time around people in the plant know and trust the doctor and confide in him. This pays off in a comprehensive medical history that is invaluable in placing workers in a safe environment. It means the doctor has greater insight to help him in administering preventive medicine.

That medical history can help substantially in contested compensation cases. An attorney who specializes in compensation cases told us: "Medical history can be very important in determining the outcome of this kind of case. Too many preemployment physical examination reports are very wanting in this regard." • •


# Air-Cushioned for Extra Safety

**NEW NALGENE® SAFETY BOTTLE CARRIER**

**This exclusive new Nalgene fluted design in resilient polyethylene air-cushions 5-pint bottles against accidental bumps—an important *extra* margin of protection against breakage and spilling of caustic fluids. The tight snap-on cover holds finger-loop bottles securely in the carrier. And the heavy wire handle, sealed in plastisol, makes it comfortable to carry, easy to pour. Find out more about this low-cost way to carry chemical bottles safely. $13.50 each.**

**THE NALGE CO., INC.**
ROCHESTER 2, NEW YORK
*Today's Most Complete Line of Plastic Laboratory Ware*

The Nalge Co., Inc., Dept.193, Rochester 2, N. Y.

Please send me information on Nalgene Safety Bottle Carriers.

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Business Address .....

.....

City ..... Zone ..... State .....

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# THIS PIN

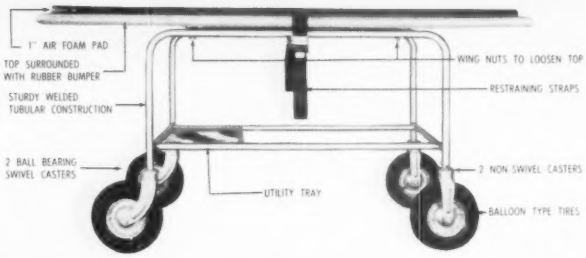
is an award. It represents an accomplishment to the wearer. It can mean man hours and dollars saved. It can work to prevent accidents, too. Our Maco Plan is free for the asking.

SAFETY AWARD
NO ACCIDENT
5 YEARS

IT CAN PAY DIVIDENDS!

METAL ARTS COMPANY
ROCHESTER 19, N. Y.

a "MUST" for your first aid . . .




# HAUSTED Industrial Wheel Stretcher

Don't complicate the plight of an injured worker by moving him carelessly!

Use a low-cost Hausted Industrial Wheel Stretcher, specifically designed for the first aid departments of all industrial plants.

The top of this wheel stretcher may be removed and set on the floor on its 2" legs. This permits easier, safer placement of injured worker on litter following an accident.

Balloon-type pneumatic tires on ball-bearing wheels, a full size, 26¾" x 74", 19-gauge steel litter top with a rubber bumper surrounding all edges are popular features. A 1" air foam pad and pair of restraining straps are provided.

The Hausted Industrial Wheel Stretcher is made of welded 1⅛" steel tubular frame. It has an aluminum utility tray for blankets, etc.

Made by the Simmons Company, Hausted Division, the largest producer of a line of hospital wheel stretchers and allied equipment. It is engineered to give value and years of trouble-free service.

*For full details and price, write to:*

SIMMONS COMPANY
HAUSTED DIVISION
MEDINA, OHIO

Circle No. 65 on reader service card

## GOLDEN SHOE CLUB

Dedicated to Foot Safety

**To inquire about club membership, write:**

**Golden Shoe Club**
**1509 Washington Ave.,**
**St. Louis 66, Mo.**

*Raymond Urban* and crew were barring a 950-pound rail. The crow bar slipped and the rail dropped 2 feet onto Urban's right foot. His safety shoe absorbed the blow and a serious foot injury was avoided. This happened at Central Illinois Light Co., Springfield.

*John C. Cessna*, Hercules Powder Co., Cumberland, Maryland, was positioning a rocket motor on a cart. He was standing on the rail when the cart carrying material weighing close to 1000 pounds struck his foot. The steel cap of his safety shoe was dented but his only discomfort was two bruised toes.

*Richard G. Propheter*, Milwaukee Gas & Light Co., Milwaukee, was placing a 205-pound gate valve on a shelf. His hands were muddy and slippery, he lost his grip and the valve dropped 2 feet on his foot. Because of his safety shoe the blow glanced off causing no injury.

*Donald L. Heltebran* of Westinghouse Electric Corp., Cheswick, Pa., was helping to move a chain away from the front wheels of a fork truck. His foot was wedged by the truck. Before he could pry himself loose, the truck started rolling forward over his foot. Truck and material carried a combined weight of 3,500 pounds. Company officials are sure Heltebran would have suffered severe toe injuries, had he not been wearing safety shoes.

A fellow worker accidentally backed an electric welder over *Harvey Hall's* safety shoe. Equipped with cables, the electric welder weighed approximately 900 pounds. Officials at the Olin Mathieson Chemical Corp., Covington, Ind., are certain Hall's toes would have been crushed, had he not been wearing safety shoes.

# LITERATURE
OFFERED IN THIS MONTH'S ADS

### Safety hat

Folder S-1456 describes American Optical Co.'s Dura-Guard hats and caps that meet or exceed all standard specifications.

**Circle No. 28 on reader service card**

### Safety shoes

Thom McAn offers literature on its line of safety shoes. Each style has its own special features.

**Circle No. 9 on reader service card**

### Plant protection

The William J. Burns International Detective Agency tells, in "It Takes More Than Fences," how you can get modern protection at a 20 percent or more saving.

**Circle No. 21 on reader service card**

### Portable wheel stretcher

Orthopedic Frame Co. literature describes the Stryker portable wheeled stretcher.

**Circle No. 42 on reader service card**

### Salt tablets

U. S. Safety Co. literature tells how salt tablets combat heat fatigue, keep workers refreshed, reduce hot weather accidents.

**Circle No. 11 on reader service card**

### "All-Use" fire extinguisher

American LaFrance offers literature and demonstrations on how its "All-Use" fire extinguishers handles A, B, or C fires.

**Circle No. 7 on reader service card**

### Industrial gloves

Free literature from Wilson Rubber Co. spells out how Wil-Gard industrial gloves provide protection against more than 200 chemicals.

**Circle No. 34 on reader service card**

### Shatter-guard

A brochure from Master Pneumatics, Inc., outlines causes of lubricator bowl breakage and how the Shatter-Guard eliminates this hazard.

**Circle No. 5 on reader service card**

### Foot safety

Lehigh Safety Shoe Co. presents a new 16-page comic book pay envelope stuffer. It tells the foot safety story in a way that every worker will read from cover to cover. Free in any quantities to include your entire payroll.

**Circle No. 15 on reader service card**

### Portable oxygen

PocketAIRE medical unit provides a positive, economical means of giving oxygen to stricken workers, says literature from Rockwood Sprinkler Co.

**Circle No. 39 on reader service card**

### Eyeshield

Dockson Corp. has bulletin sheets detailing advantages from the broader vision, better ventilation, and lower cost of its Chiporweld eyeshield.

**Circle No. 45 on reader service card**

### Safety signs

Ready Made Sign Co. offers a 4-color catalog dealing with its line of radiation, caution, and safety signs.

**Circle No. 54 on reader service card**

### Explosion-proof hoist

Shepard Niles Crane & Hoist Corp. will send you a free bulletin covering its Job-Mated hoist.

**Circle No. 35 on reader service card**

### Welding helmets

Jackson Products offers 20 different welding helmets. Choose your own shape, material, and lens holder. Information free.

**Circle No. 32 on reader service card**

### Stairway safety

Complete information on nonslip Alundum Tile and the use of the new adhesives is available from Norton Co.

**Circle No. 73 on reader service card**

### Non-slip gloves

Granet Corp.'s Slip-not gloves are described in a catalog which points out the many applications and advantages of the gloves.

**Circle No. 33 on reader service card**

### Safety eyewear

Mine Safety Appliances Co. tells in two publications of a complete vision protection program: "The MSA Eye and Face Protection Catalog" and "The MSA Sightgard Prescription Safety Eyewear Program Booklet."

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**Circle No. 66 on reader service card**

**Let KEY-BAK HELP CUT DRILL-PRESS ACCIDENTS**

Attach SAF-T-CHUCK KEY-BAK to all drill-presses. Chuck key is always handy; SAF-T-CHUCK key springs out when released. It can NEVER, NEVER, NEVER be thrown from the whirling chuck. MODEL 7SK, $4.45 complete with #3 key. Key available in ten sizes.

**$4.45 RETAIL**

**KEY-BAK KEY REEL**

Wear regular KEY-BAK Key Reel on your belt. Pocket watch size, high-polished chrome finish. Swedish clock spring reels in 24" long stainless-steel chain. NO DANGEROUS, DANGLING CHAINS TO CATCH IN MACHINERY AND CAUSE ACCIDENTS. For your shop and maintenance-men. Order now!

**$2.95 RETAIL**

ORDER FROM YOUR JOBBER — OR WRITE DIRECT!

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**OVER TWO MILLION KEY-BAKS SOLD!**

**KLEAR-VU Safety MIRRORS**

Prevent traffic accidents at dangerous blind corners inside and outside your plant or warehouse.

Klear-Vu convex mirrors cover a viewing angle of 160°. Mounted at a height of 8 to 10 feet, they clearly reflect the movement of approaching intersectional traffic at blind corner locations, thereby removing the principal cause for collision accidents.

Klear-Vu is the quality traffic mirror that gives the sharpest reflection and years of service.

Easy to install, adjustable to any desired angle—Equipped with swivel assembly and mounting bracket.

| STYLE | NO. | DIA. | STYLE | NO. | SIZE |
|---|---|---|---|---|---|
| CIRCULAR CONVEX GLASS | 120 | 12" | FLAT GLASS | 918 | 9"X18" |
| | 180 & 180 M.R. | 18" | | 1640 | 16"X24" |
| | 240 & 240 M.R. | 24" | | 2436 | 24"X36" |
| | 300 & 300 M.R. | 30" | *M.R. indicates metal rim (for outdoor use) | | |
| | 360 & 360 M.R. | 36" | | | |

Special sizes made to order. Polished metal mirrors available. WRITE FOR BULLETIN

**LESTER L. BROSSARD CO.**
540 NORTH MICHIGAN AVE. • CHICAGO 11, ILL.

**Circle No. 67 on reader service card**

## TURTLE CLUB

*Felix T. Grous* (Texaco, Inc., Wilmington, Calif.) was struck on the head by a box wrench which slipped out of the hand of another employee working 60 feet above. This might have been a fatal blow, but Grous's safety hat protected him.

*George Nayduk* of the Ontario Hydro Electric Power Commission, Toronto, was hoisting steel by means of a tag line. The steel fell when the tag line broke. Although a heavy end hit Nayduk on the head, his safety hat absorbed the blow completely.

*Harold Long,* a forestry aide for the North Carolina National Forests, was driving a pickup truck on U. S. Highway 19 when a dump truck coming in the opposite direction swerved to avoid hitting two pedestrians and hit Long's vehicle head-on. The impact hurled Long up and over the steering wheel. He struck his head against the metal rim of the truck cab. His safety hat absorbed some of the blow's force, prevented fatal injury.

A Klein wrench was dislodged from the belt of a lineman working near the top of a pole and struck *Edgar J. Thibodeau,* Central Hudson Gas & Electric Corp., Poughkeepsie, N. Y. Thanks to his safety hat, he escaped serious head injuries.

At the Nitrogen Division, Allied Chemical Corp., Omaha, Neb., *Jack Finley* was removing fire brick. One brick toppled and fell 20 feet, striking him squarely on the head. A resounding thud was heard, but no injury was sustained due to Finley's safety hat.

As he tried to loosen plastic which had hardened in a drain line, *Walter Kenneth Rehm* of Monsanto Chemical Co. (Springfield, Mass.) was hit by a 25-pound piece he pried loose. Because of his safety hat, the plastic was chipped, but not his skull.

At St. Regis Paper Co. (Deferiet, N. Y.) *Joseph Eggleston* was unloading pulpwood from a boxcar when he was struck on the head by a falling 22-pound piece of lumber. Because he was wearing a safety hat, Eggleston was not seriously injured.

As *Gilbert Kovats, Jr.* (Ohio Edison Co., Akron, Ohio) was climbing a utility pole, he was struck on the head by a piece of porcelain which fell from the cut-out 30 feet above him. Kovats was wearing a safety helmet, which averted severe cuts on his head and face.

Cement finisher *Dirk Bloem* (Owens-Ames-Kimball Co., Grand Rapids, Mich.) was working in a stair well. One floor above him, a brick mason kicked a brick loose. It fell 20 feet, striking Bloem's head and shoulder. His safety hat cushioned the blow and prevented a severe head injury.

In the carpenter shop of Brown & Root, Inc. (Houston), *Stanley Manuel* was moving some lumber when a piece of iron pipe fell from 50 feet above him and crashed down on his safety hat. Manuel was not seriously injured.


why is a fire alarm system like a parachute?

. . . It's too late to take either one back if it doesn't work.

*Moral:* If parachute jumping is your hobby, be sure the one who folds your parachute knows his business. If fire protection is your responsibility (and it's everyone's) be sure the system you recommend is made by people who know their business.

**Autocall®**

**SAFEGUARDS MILLIONS**

**THE AUTOCALL COMPANY, SHELBY 10, OHIO**

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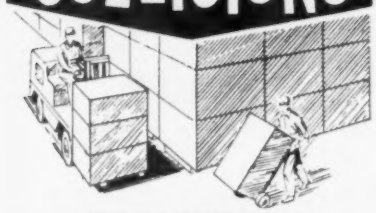
STOP COLLISIONS



PREVENT ACCIDENTS AT BLIND CORNERS WITH INEXPENSIVE

SEE ALL REFLECTOR MIRRORS

See how fast these amazing convex mirrors curtail traffic accidents throughout your plant and at loading platforms! Provides wide-spread 160° viewing angle and razor-sharp reflection. Install at traffic corners and over assembly-line operations to step-up employee alertness and efficiency.

36" See-All Reflector

26" See-All Reflector

36" reflector equivalent to viewing area of 144 sq. ft. of flat mirror. Easily installed—completely adjustable. Mirror, stand, brackets and all necessary hardware included with each unit. Write for low prices today.

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814 W. Diversey Ave • Chicago, Ill.

FOR GREATER PRODUCTION SPEED EFFICIENCY

FIRST WILDER IN QUALITY

prevent property accidents and personal injury!

ADJUSTABLE SOLDERING IRON HOLDERS

Any of Wilder's 5 Soldering Iron Holder Models can be used with brackets or clamps for mounting to suit any soldering need.

WRITE FOR COMPLETE CATALOG & ACCESSORY LIST TODAY!

WILDER MFG. CO., INC., PORT JERVIS, N. Y.

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## NAMES IN THE NEWS

people • companies • associations

*Wilson Rubber Co.* of Canton, Ohio announces the formation of a top-management team. President, *John W. Simmons,* moves to Rutherford, N. J. to become executive vice president and chief of operations of Becton, Dickinson & Co. Wilson's wholly owned subsidiary. *John Yacos, Jr.,* takes over as general manager at Wilson, *T. L. Peterson* as sales manager.

J. W. Simmons

J. Weir

*Jack Weir,* formerly a safety engineer at North American Aviation, Inc., has joined the sales department of *Fibre-Metal Pacific, Inc.* He'll work with welding and safety distributors in southern California, Arizona and southern Nevada.

*Earle M. Scott,* President of Scott Aviation Corp., recently announced important changes in its sales organization, *L. F. Jordan,* General sales manager, Commercial Division, moves into the newly created position of director of marketing for all divisions — Commercial, Civil Aviation and Military Aviation. Jordan is a director and has been with Scott 11 years. *Richard A. Noelck,* branch manager for the past 8 years, will assume the position of director of sales for all company divisions. *Robert J. Brewer,* assistant sales manager, Commercial Division, becomes sales manager of that division. He has been with the Scott organization for 6 years.

Nine sessions of *Ansul Chemical Co.'s 1961 Fire School* are now open for enrollment, according to Fire School Director *Frank L. Hruska.* Three-day sessions are scheduled from May 22 to September 18 on Ansul's 5-acre training ground at Marinette, Wis.

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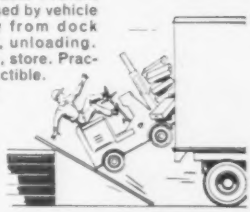
BLOCK THAT WHEEL

. . . and PREVENT THIS!

Safety Wheel Blocks are light, strong, tough because they're STEEL CASTINGS. Hold heavy trucks, trailers with ease. Prevent accidents caused by vehicle moving away from dock while loading, unloading. Easy to handle, store. Practically indestructible.

Stocked for Immediate Delivery



$12.35 ea. 1-5 Blocks

$11.45 ea. 6 or more

F.O.B. Hammond, Ind.

Order now for immediate delivery! Write for illustrated catalog.

CALUMET STEEL CASTINGS CORP.
1640 SUMMER STREET • HAMMOND, INDIANA

SIGNS

to fill your every need

SECTION 350
HAS WORKED
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A LOST TIME ACCIDENT
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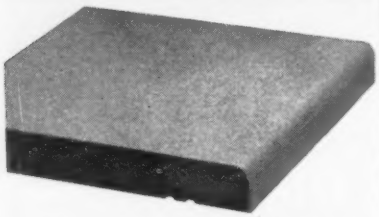

**NOW EASIER THAN EVER!**

**Maximum Stairway Safety with ALUNDUM Tile**

Safety engineers have long acknowledged that ALUNDUM Stair Tile provides the maximum obtainable combination of non-slip effectiveness (wet or dry) and resistance to wear.

Now the development of epoxy based adhesives makes it easy to install ALUNDUM Tiles on wood or cement surfaces. They not only provide a strong, waterproof bond but take much less space than ordinary mortar.

Write for information on ALUNDUM Tile and the use of the new adhesives.

NORTON COMPANY
WORCESTER 6, MASS.

NORTON
NON-SLIP FLOORS

**PAULSON FACE SHIELD**

FOR FULL face protection, this Paulson 7-11-F is ideal. Use for grinding, buffing, chipping, polishing, machine shop operation. Plastic interchangeable headgear with spark deflector and sweatband. Face Protector made of quality optical acetate, easily replaceable. Free of distortion. May be worn over prescription glasses.

*Choice of Black or White Headgear. Clear, Light Amber or Light Green Face Protector.*

***Write for Catalog and Special School Prices.***

PAULSON MFG. CORP.
Fallbrook Calif.

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**Now! SAW SAFELY AND SEE!**

**Eliminate All Saw Hazards With Brett-Guard**

(the new visual safety tool)

For all circular saws

**NEW!** A versatile combination visual circular saw guard and saw fixture—uniting the ultimate in precision-designed tools for efficient guiding with the maximum in 100% safe guarding—has recently been introduced and marketed by the Brett-Guard Company to prevent saw injuries. This See-Through Saw Guard made of ½ in. thick transparent plastic protects users of table saws during all operations. The unique safety device may be locked in a variety of operating positions to prevent physical contact with the blade and eliminate flying chips. Simple to set up . . . economical for both large and small jobs . . . so safe that it's being used in vocational schools for the blind . . . made of transparent PLEXIGLAS that lets you see what you saw . . . fully adjustable for all those impossible-to-guard cuts . . . fitting all circular table-type "rip" saws for 6" to 22" blades . . . protects operators where no other saw guard will function!

SHOP TESTED—APPROVED BY SAFETY ENGINEERS AND GOVERNMENT AGENCIES NATION WIDE.

- **FREE 30 DAY TRIAL! Send blade diameter and make of power saws.**
- **16MM NEW SAW SAFETY-EDUCATION DEMONSTRATION SOUND FILM! Available free loan**

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**BRETT-GUARD CORP.**
ENGLEWOOD, N. J.

- **Reduce traffic accidents at blind corners inside and outside your plant—also at loading platforms.**

**Traffic Safety Mirrors are available in Convex or Flat glass. All have a Yellow and Black Safety Stripe border.**

**Round Convex Mirror Sizes**
**13" • 18" • 26" • 36"**
**Flat Rectangle Mirror Sizes**
**6"x14" 14"x18"**
*other special sizes to order*
(Avialable in Unbreakable Metal Mirrors)

**FRED SILVER & Company**
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| 3 | 19 | 35 | 51 | 67 | 83 | 99 | 115 | 131 | 147 | 163 | 179 |
| 4 | 20 | 36 | 52 | 68 | 84 | 100 | 116 | 132 | 148 | 164 | 180 |
| 5 | 21 | 37 | 53 | 69 | 85 | 101 | 117 | 133 | 149 | 165 | 181 |
| 6 | 22 | 38 | 54 | 70 | 86 | 102 | 118 | 134 | 150 | 166 | 182 |
| 7 | 23 | 39 | 55 | 71 | 87 | 103 | 119 | 135 | 151 | 167 | 183 |
| 8 | 24 | 40 | 56 | 72 | 88 | 104 | 120 | 136 | 152 | 168 | 184 |
| 9 | 25 | 41 | 57 | 73 | 89 | 105 | 121 | 137 | 153 | 169 | 185 |
| 10 | 26 | 42 | 58 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 |
| 11 | 27 | 43 | 59 | 75 | 91 | 107 | 123 | 139 | 155 | 171 | 187 |
| 12 | 28 | 44 | 60 | 76 | 92 | 108 | 124 | 140 | 156 | 172 | 188 |
| 13 | 29 | 45 | 61 | 77 | 93 | 109 | 125 | 141 | 157 | 173 | 189 |
| 14 | 30 | 46 | 62 | 78 | 94 | 110 | 126 | 142 | 158 | 174 | 190 |
| 15 | 31 | 47 | 63 | 79 | 95 | 111 | 127 | 143 | 159 | 175 | 191 |
| 16 | 32 | 48 | 64 | 80 | 96 | 112 | 128 | 144 | 160 | 176 | 192 |

**NEW PRODUCTS**

| | | | |
|---|---|---|---|
| 200 | 216 | 232 | 248 |
| 201 | 217 | 233 | 249 |
| 202 | 218 | 234 | 250 |
| 203 | 219 | 235 | 251 |
| 204 | 220 | 236 | 252 |
| 205 | 221 | 237 | 253 |
| 206 | 222 | 238 | 254 |
| 207 | 223 | 239 | 255 |
| 208 | 224 | 240 | 256 |
| 209 | 225 | 241 | 257 |
| 210 | 226 | 242 | 258 |
| 211 | 227 | 243 | 259 |
| 212 | 228 | 244 | 260 |
| 213 | 229 | 245 | 261 |
| 214 | 230 | 246 | 262 |
| 215 | 231 | 247 | 263 |

**USEFUL LITERATURE**

| | | | |
|---|---|---|---|
| 300 | 316 | 332 | 348 |
| 301 | 317 | 333 | 349 |
| 302 | 318 | 334 | 350 |
| 303 | 319 | 335 | 351 |
| 304 | 320 | 336 | 352 |
| 305 | 321 | 337 | 353 |
| 306 | 322 | 338 | 354 |
| 307 | 323 | 339 | 355 |
| 308 | 324 | 340 | 356 |
| 309 | 325 | 341 | 357 |
| 310 | 326 | 342 | 358 |
| 311 | 327 | 343 | 359 |
| 312 | 328 | 344 | 360 |
| 313 | 329 | 345 | 361 |
| 314 | 330 | 346 | 362 |
| 315 | 331 | 347 | 363 |

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| 4 | 20 | 36 | 52 | 68 | 84 | 100 | 116 | 132 | 148 | 164 | 180 |
| 5 | 21 | 37 | 53 | 69 | 85 | 101 | 117 | 133 | 149 | 165 | 181 |
| 6 | 22 | 38 | 54 | 70 | 86 | 102 | 118 | 134 | 150 | 166 | 182 |
| 7 | 23 | 39 | 55 | 71 | 87 | 103 | 119 | 135 | 151 | 167 | 183 |
| 8 | 24 | 40 | 56 | 72 | 88 | 104 | 120 | 136 | 152 | 168 | 184 |
| 9 | 25 | 41 | 57 | 73 | 89 | 105 | 121 | 137 | 153 | 169 | 185 |
| 10 | 26 | 42 | 58 | 74 | 90 | 106 | 122 | 138 | 154 | 170 | 186 |
| 11 | 27 | 43 | 59 | 75 | 91 | 107 | 123 | 139 | 155 | 171 | 187 |
| 12 | 28 | 44 | 60 | 76 | 92 | 108 | 124 | 140 | 156 | 172 | 188 |
| 13 | 29 | 45 | 61 | 77 | 93 | 109 | 125 | 141 | 157 | 173 | 189 |
| 14 | 30 | 46 | 62 | 78 | 94 | 110 | 126 | 142 | 158 | 174 | 190 |
| 15 | 31 | 47 | 63 | 79 | 95 | 111 | 127 | 143 | 159 | 175 | 191 |
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**NEW PRODUCTS**

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| 211 | 227 | 243 | 259 |
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| 213 | 229 | 245 | 261 |
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**USEFUL LITERATURE**

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| 310 | 326 | 342 | 358 |
| 311 | 327 | 343 | 359 |
| 312 | 328 | 344 | 360 |
| 313 | 329 | 345 | 361 |
| 314 | 330 | 346 | 362 |
| 315 | 331 | 347 | 363 |

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You are ahead when you take the time to find out what's new in the industrial safety field.

Get the information on new ways to make your safety program more efficient.

For instance:

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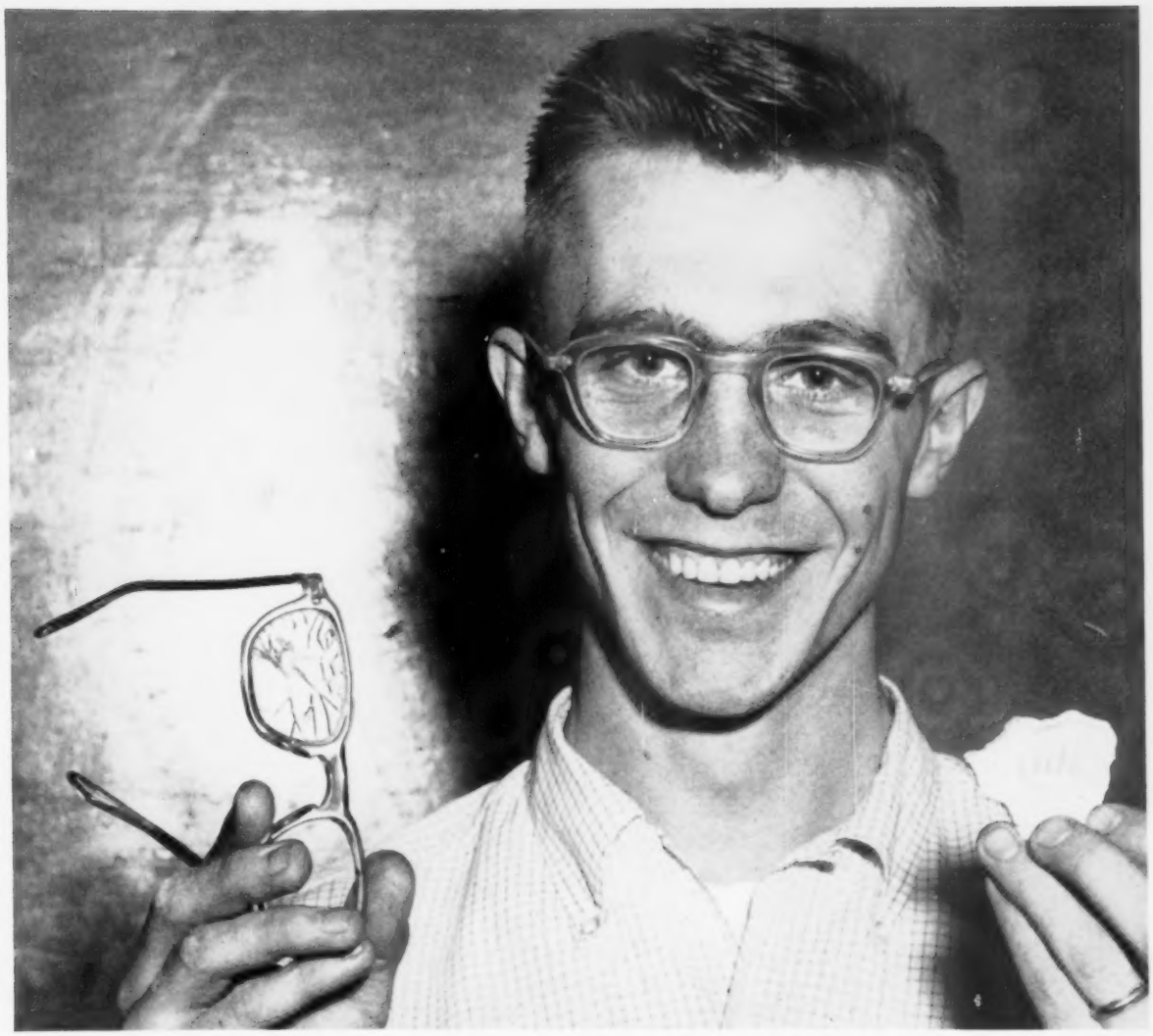

# Ask Dick Polk how much extra protection is "enough"

"Easy: the most you can get!" You can't do much about taking the unpredictability out of accidents, but you *can* measure your protection. Here at Bausch & Lomb we practice what we preach. It pays off, every time.

This particular accident happened to one of our production engineers, Richard N. Polk. He was cleaning a refractory pot when—wham! A jagged chunk exploded off and headed right for his eye. Dick's Bal-SAFE lens cracked under the terrific impact, but not a particle was dislodged. Result—one eye saved.

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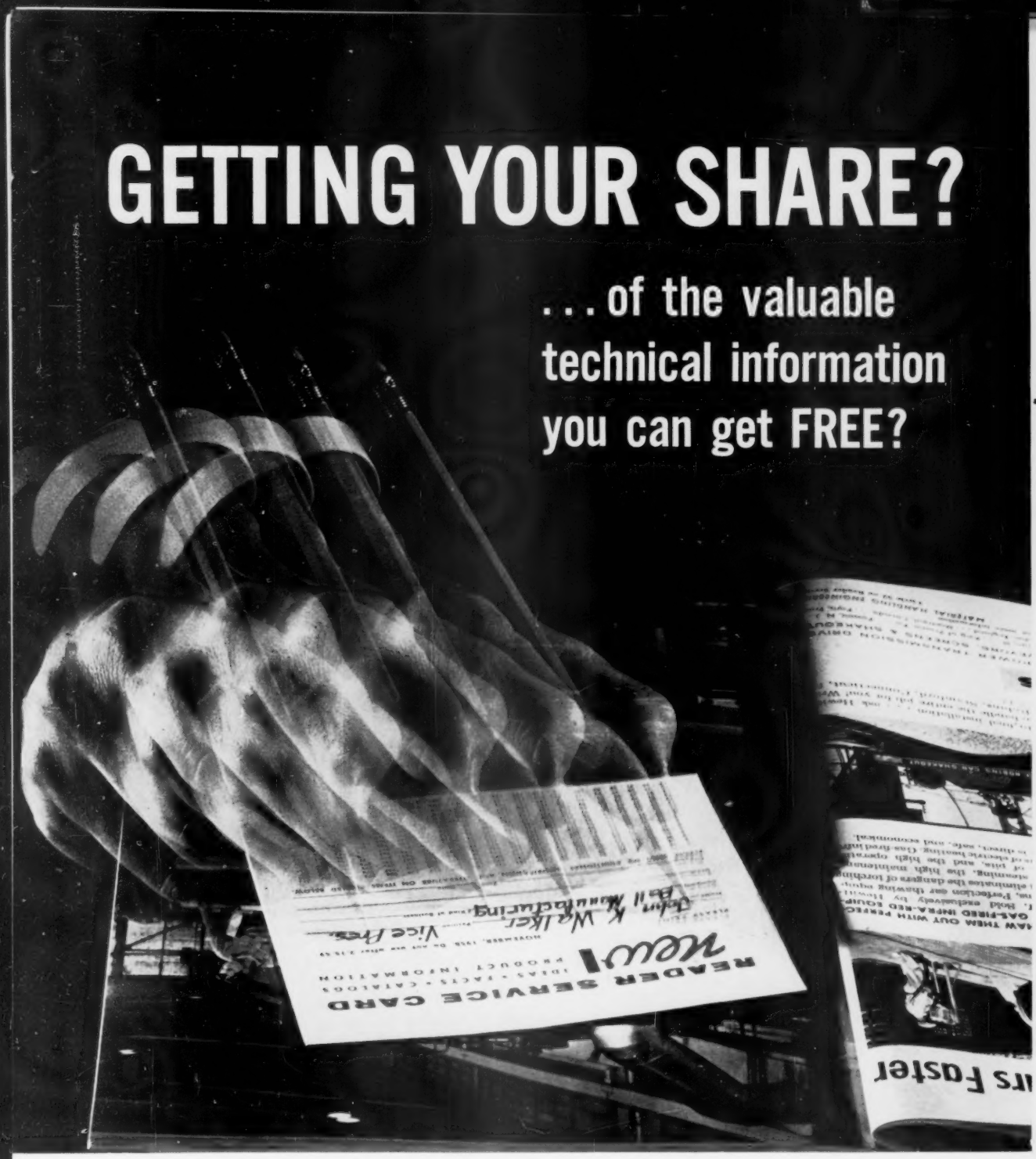


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